LABORATORY DATA CONSULTANTS, INC.

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Terranext
4050 E. Cotton Center Blvd. Ste 73
Phoenix, AZ 85040
ATTN: Mr. Chuck Gordon

May 23, 2014

SUBJECT: West Van Buren Area, Data Validation

Dear Mr. Gordon,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on April 14, 2014. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #31646:

SDG #	Fraction
480700, 480824, 480973 481073, 481201, 481318 481385, 481550, 481609 481683, 481853, 481951 482071, 482072	Volatiles, Polychlorinated Biphenyls, Wet Chemistry, Metals

The data validation was performed under EPA Level III & IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink
Project Manager/Chemist

539 pages-SF

Attachment 1

Level III/IV- Client Select

LDC #31646 (Terranext-Phoenix, AZ / West Van Buren Area)

Project #0310-3154-16

LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (8260B)		PCBs (8082)		Cr (6010B)		Diss. Cr (6010B)		Se (6010B)		Diss Se (6010B)		Cr(VI) (3500)		CN- (335.4)																			
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	480700	04/14/14	05/05/14	6	0	-	-	5	0	5	0	-	-	-	-	-	-	-	-																		
B	480824	04/14/14	05/05/14	6	0	-	-	5	0	5	0	-	-	-	-	-	-	-	-																		
C	480973	04/14/14	05/05/14	8	0	-	-	6	0	6	0	-	-	-	-	-	-	-	-																		
D	481073	04/14/14	05/05/14	6	0	-	-	5	0	5	0	-	-	-	-	-	-	-	-																		
E	481201	04/14/14	05/05/14	6	0	1	0	3	0	3	0	-	-	-	-	1	0	-	-																		
F	481318	04/14/14	05/05/14	10	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-																		
G	481385	04/14/14	05/05/14	14	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-																		
H	481550	04/14/14	05/05/14	16	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-																		
I	481609	04/14/14	05/05/14	16	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-																		
J	481683	04/14/14	05/05/14	8	0	-	-	7	0	7	0	-	-	-	-	-	-	-	-																		
K	481853	04/14/14	05/05/14	13	0	-	-	12	0	12	0	-	-	-	-	-	-	3	0																		
L	481951	04/14/14	05/05/14	12	0	1	0	11	0	11	0	-	-	-	-	1	0	1	0																		
M	482071	04/14/14	05/05/14	11	0	-	-	9	0	8	0	9	0	8	0	-	-	1	0																		
N	482072	04/14/14	05/05/14	1	0	-	-	1	0	1	0	-	-	-	-	-	-	-	-																		
Total	A/CR			133	0	2	0	64	0	63	0	9	0	8	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	286

Shaded cells indicate Level IV validation (all other cells are Level IIII validation). These sample counts do not include MS/MSD, and DUPs

31646ST.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 10, 2014
LDC Report Date:	April 22, 2014
Matrix:	Water
Parameters:	Volatiles
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	480700

Sample Identification

AVB124-0202-1000
AVB124-0200-16270
AVB131-0100-16215
AVB126-0200-14230
AVB126-0300-13325
AVB126-0304-1000

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB124-0202-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB126-0304-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 480700

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 480700

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 480700

No Sample Data Qualified in this SDG

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0202-1000** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-001 Date Collected: 03.10.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 17.05		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 17.05		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 17.05		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 17.05		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 17.05		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 17.05		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 17.05		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 17.05		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 17.05		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 17.05		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 17.05		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 17.05		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 17.05		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 17.05		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 17.05		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 17.05		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 17.05		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 17.05		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 17.05		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 17.05		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 17.05		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 17.05		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 17.05		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 17.05		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 17.05		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 17.05		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 17.05		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 17.05		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 17.05		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 17.05		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 17.05		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 17.05		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 17.05		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 17.05		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 17.05		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 17.05		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 17.05		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 17.05		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 17.05		1

Final 1.000

02/22/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0202-1000** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-001 Date Collected: 03.10.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 17.05		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 17.05		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 17.05		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 17.05		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 17.05		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 17.05		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 17.05		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 17.05		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 17.05		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 17.05		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 17.05		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 17.05		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 17.05		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 17.05		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.13.14 17.05		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 17.05		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 17.05		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 17.05		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 17.05		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 17.05		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 17.05		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 17.05		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 17.05		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 17.05		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 17.05		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 17.05		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 17.05		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 17.05		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 17.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	69-133	03.13.14 17.05	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	03.13.14 17.05	
Toluene-D8	2037-26-5	115	%	70-130	03.13.14 17.05	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.13.14 17.05	

Final 1.000

CLY 3/22/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0200-16270** Matrix: Water Date Received:03.10.14 15.35

Lab Sample Id: 480700-002 Date Collected: 03.10.14 08.42

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 17.31		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 17.31		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 17.31		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 17.31		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 17.31		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 17.31		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 17.31		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 17.31		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 17.31		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 17.31		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 17.31		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 17.31		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 17.31		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 17.31		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 17.31		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 17.31		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 17.31		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 17.31		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 17.31		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 17.31		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 17.31		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 17.31		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 17.31		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 17.31		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 17.31		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 17.31		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 17.31		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 17.31		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 17.31		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 17.31		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 17.31		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 17.31		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 17.31		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 17.31		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 17.31		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 17.31		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 17.31		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 17.31		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 17.31		1

Final 1.000

04/22/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0200-16270** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-002 Date Collected: 03.10.14 08.42

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 17.31		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 17.31		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 17.31		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 17.31		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 17.31		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 17.31		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 17.31		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 17.31		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 17.31		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 17.31		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 17.31		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 17.31		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 17.31		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 17.31		1
Toluene	108-88-3	**21.1**	2.00	ug/L	03.13.14 17.31		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 17.31		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 17.31		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 17.31		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 17.31		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 17.31		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 17.31		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 17.31		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 17.31		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 17.31		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 17.31		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 17.31		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 17.31		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 17.31		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 17.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	69-133	03.13.14 17.31	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	03.13.14 17.31	
Toluene-D8	2037-26-5	107	%	70-130	03.13.14 17.31	
4-Bromofluorobenzene	460-00-4	100	%	70-135	03.13.14 17.31	

CR 4/22/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB131-0100-16215** Matrix: Water Date Received:03.10.14 15.35

Lab Sample Id: 480700-003 Date Collected: 03.10.14 10.20

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 17.57		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 17.57		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 17.57		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 17.57		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 17.57		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 17.57		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 17.57		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 17.57		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 17.57		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 17.57		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 17.57		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 17.57		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 17.57		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 17.57		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 17.57		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 17.57		1
Chloroform	67-66-3	**2.36**	0.500	ug/L	03.13.14 17.57		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 17.57		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 17.57		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 17.57		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 17.57		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 17.57		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 17.57		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 17.57		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 17.57		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 17.57		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 17.57		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 17.57		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 17.57		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 17.57		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 17.57		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 17.57		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 17.57		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 17.57		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 17.57		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 17.57		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 17.57		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 17.57		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 17.57		1

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Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB131-0100-16215** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-003 Date Collected: 03.10.14 10.20

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 17.57		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 17.57		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 17.57		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 17.57		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 17.57		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 17.57		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 17.57		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 17.57		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 17.57		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 17.57		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 17.57		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 17.57		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 17.57		1
Tetrachloroethylene	127-18-4	**1.07**	0.500	ug/L	03.13.14 17.57		1
Toluene	108-88-3	**58.8**	2.00	ug/L	03.13.14 17.57		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 17.57		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 17.57		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 17.57		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 17.57		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 17.57		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 17.57		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 17.57		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 17.57		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 17.57		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 17.57		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 17.57		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 17.57		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 17.57		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 17.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	69-133	03.13.14 17.57	
1,2-Dichloroethane-D4	17060-07-0	107	%	66-139	03.13.14 17.57	
Toluene-D8	2037-26-5	100	%	70-130	03.13.14 17.57	
4-Bromofluorobenzene	460-00-4	98	%	70-135	03.13.14 17.57	

CEM 3/24/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0200-14230** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-004 Date Collected: 03.10.14 12.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 18.23		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 18.23		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 18.23		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 18.23		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 18.23		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 18.23		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 18.23		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 18.23		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 18.23		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 18.23		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 18.23		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 18.23		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 18.23		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 18.23		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 18.23		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 18.23		1
Chloroform	67-66-3	**0.750**	0.500	ug/L	03.13.14 18.23		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 18.23		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 18.23		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 18.23		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 18.23		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 18.23		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 18.23		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 18.23		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 18.23		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 18.23		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 18.23		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 18.23		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 18.23		1
1,1-Dichloroethane	75-34-3	**1.86**	0.500	ug/L	03.13.14 18.23		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 18.23		1
1,1-Dichloroethene	75-35-4	**1.97**	0.500	ug/L	03.13.14 18.23		1
cis-1,2-Dichloroethene	156-59-2	**1.88**	0.500	ug/L	03.13.14 18.23		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 18.23		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 18.23		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 18.23		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 18.23		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 18.23		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 18.23		1

CL 4/22/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0200-14230** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-004 Date Collected: 03.10.14 12.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 18.23		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 18.23		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 18.23		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 18.23		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 18.23		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 18.23		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 18.23		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 18.23		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 18.23		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 18.23		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 18.23		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 18.23		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 18.23		1
Tetrachloroethylene	127-18-4	**1.16**	0.500	ug/L	03.13.14 18.23		1
Toluene	108-88-3	**36.1**	2.00	ug/L	03.13.14 18.23		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 18.23		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 18.23		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 18.23		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 18.23		1
Trichloroethene	79-01-6	**7.81**	0.500	ug/L	03.13.14 18.23		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 18.23		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 18.23		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 18.23		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 18.23		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 18.23		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 18.23		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 18.23		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 18.23		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 18.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.13.14 18.23	
1,2-Dichloroethane-D4	17060-07-0	105	%	66-139	03.13.14 18.23	
Toluene-D8	2037-26-5	109	%	70-130	03.13.14 18.23	
4-Bromofluorobenzene	460-00-4	98	%	70-135	03.13.14 18.23	

CL 4/2/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0300-13325** Matrix: Water Date Received:03.10.14 15.35

Lab Sample Id: 480700-005 Date Collected: 03.10.14 14.47

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 18.48		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 18.48		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 18.48		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 18.48		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 18.48		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 18.48		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 18.48		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 18.48		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 18.48		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 18.48		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 18.48		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 18.48		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 18.48		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 18.48		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 18.48		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 18.48		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 18.48		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 18.48		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 18.48		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 18.48		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 18.48		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 18.48		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 18.48		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 18.48		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 18.48		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 18.48		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 18.48		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 18.48		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 18.48		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 18.48		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 18.48		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 18.48		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 18.48		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 18.48		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 18.48		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 18.48		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 18.48		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 18.48		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 18.48		1

02/12/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0300-13325** Matrix: Water Date Received:03.10.14 15.35

Lab Sample Id: 480700-005 Date Collected: 03.10.14 14.47

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 18.48		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 18.48		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 18.48		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 18.48		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 18.48		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 18.48		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 18.48		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 18.48		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 18.48		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 18.48		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 18.48		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 18.48		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 18.48		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 18.48		1
Toluene	108-88-3	**72.2**	2.00	ug/L	03.13.14 18.48		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 18.48		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 18.48		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 18.48		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 18.48		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 18.48		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 18.48		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 18.48		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 18.48		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 18.48		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 18.48		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 18.48		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 18.48		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 18.48		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 18.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.13.14 18.48	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.13.14 18.48	
Toluene-D8	2037-26-5	105	%	70-130	03.13.14 18.48	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.13.14 18.48	

CL4/23/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0304-1000** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-006 Date Collected: 03.10.14 14.50

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 19.14		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 19.14		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 19.14		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 19.14		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 19.14		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 19.14		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 19.14		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 19.14		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 19.14		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 19.14		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 19.14		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 19.14		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 19.14		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 19.14		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 19.14		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 19.14		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 19.14		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 19.14		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 19.14		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 19.14		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 19.14		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 19.14		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 19.14		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 19.14		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 19.14		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 19.14		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 19.14		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 19.14		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 19.14		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 19.14		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 19.14		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 19.14		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 19.14		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 19.14		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 19.14		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 19.14		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 19.14		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 19.14		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 19.14		1

03/17/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0304-1000** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-006 Date Collected: 03.10.14 14.50

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 19.14		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 19.14		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 19.14		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 19.14		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 19.14		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 19.14		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 19.14		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 19.14		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 19.14		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 19.14		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 19.14		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 19.14		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 19.14		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 19.14		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.13.14 19.14		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 19.14		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 19.14		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 19.14		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 19.14		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 19.14		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 19.14		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 19.14		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 19.14		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 19.14		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 19.14		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 19.14		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 19.14		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 19.14		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 19.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.13.14 19.14	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.13.14 19.14	
Toluene-D8	2037-26-5	106	%	70-130	03.13.14 19.14	
4-Bromofluorobenzene	460-00-4	97	%	70-135	03.13.14 19.14	

CS 4/22/14

LDC #: 31346A1a (6) **VALIDATION COMPLETENESS WORKSHEET** Date: 4/17/14
SDG #: 480700 Level III Page: 1 of 1
Laboratory: Xenco Laboratories Reviewer: EJ
2nd Reviewer: DR

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	lcs ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 1 EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB124-0202-1000 TB	11	652390-1-BLK	21		31	
2	AVB124-0200-16270	12		22		32	
3	AVB131-0100-16215	13		23		33	
4	AVB126-0200-14230	14		24		34	
5	AVB126-0300-13325	15		25		35	
6	AVB126-0304-1000 EB	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 10, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Chromium

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 480700

Sample Identification

AVB124-0200-16270
AVB131-0100-16215
AVB126-0200-14230
AVB126-0300-13325
AVB126-0304-1000
AVB124-0200-16270F
AVB131-0100-16215F
AVB126-0200-14230F
AVB126-0300-13325F
AVB126-0304-1000F

Sample IDs appended with "F" were analyzed for dissolved chromium.

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Chromium.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Level III.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No chromium was found in the preparation blanks.

Samples AVB126-0304-1000 and AVB126-0304-1000F were identified as equipment blanks. No chromium was found.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for Level III.

V. Matrix Spike Analysis

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

IX. Sample Result Verification

Raw data was not reviewed for this SDG.

X. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Chromium - Data Qualification Summary - SDG 480700

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Laboratory Blank Data Qualification Summary - SDG 480700

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Field Blank Data Qualification Summary - SDG 480700

No Sample Data Qualified in this SDG

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0200-16270** Matrix: Water Date Received:03.10.14 15.35

Lab Sample Id: 480700-002 Date Collected: 03.10.14 08.42

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.17.14 11.30

Seq Number: 936386 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.17.14 19.10		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.19.14 14.10

Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.19.14 23.18		1

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB131-0100-16215** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-003 Date Collected: 03.10.14 10.20

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.17.14 11.30
Seq Number: 936386 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.17.14 19.16		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.19.14 14.10
Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.19.14 23.24		1

03/21/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0200-14230** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-004 Date Collected: 03.10.14 12.45

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.17.14 11.30
Seq Number: 936386 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.17.14 19.22		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.19.14 14.10
Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.19.14 23.30		1

02/21/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0300-13325** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-005 Date Collected: 03.10.14 14.47

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.17.14 11.30
Seq Number: 936386 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.286**	0.0100	mg/L	03.17.14 19.28		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.19.14 14.10
Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0171**	0.0100	mg/L	03.19.14 23.36		1

CS 4/21/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0304-1000** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-006 Date Collected: 03.10.14 14.50

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.17.14 11.30
Seq Number: 936386 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.17.14 19.34		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.19.14 14.10
Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.19.14 23.42		1

Final 1.000

CEY 12/1/14

LDC #: 31346A4 (6)
SDG #: 480700
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/14
Page: 1 of 1
Reviewer: CL
2nd Reviewer: [illegible]

METHOD: Chromium (EPA SW846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/14
II.	Calibration	N	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Matrix Spike Analysis	N	CS
VI.	Duplicate Sample Analysis	N	ESQ
VII.	Laboratory Control Samples (LCS)	A	LCS/D
~~VIII.~~	~~Internal Standard (ICP-MS)~~	~~N~~	
IX.	ICP Serial Dilution	N	
X.	Sample Result Verification	N	
XI.	Overall Assessment of Data	A	
XII.	Field Duplicates	N	
XIII.	Field Blanks	ND	EB= 5,10

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB124-0200-16270	11		21		11	
2	AVB131-0100-16215	12		22		12	
3	AVB126-0200-14230	13		23		13	
4	AVB126-0300-13325	14		24		14	
5	AVB126-0304-1000	15		25		15	
6	AVB124-0200-16270F	16		26		16	
7	AVB131-0100-16215F	17		27		17	
8	AVB126-0200-14230F	18		28		18	
9	AVB126-0300-13325F	19		29		19	
10	AVB126-0304-1000F	20		30		20	

Notes: Samples appended with "F" were analyzed for dissolved chromium

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 11, 2014

LDC Report Date: April 22, 2014

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 480824

Sample Identification

AVB136-0102-1000
AVB136-0100-14235
AVB121-0200-13240
AVB137-0100-13260
AVB133-0100-16200
AVB133-0104-1000
AVB133-0104-1000MS
AVB133-0104-1000MSD

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB136-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB133-0104-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652470LCS/D (AVB133-0104-1000 652470-1-BLK)	Vinyl chloride	-	122 (43-120)	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 480824

SDG	Sample	Compound	Flag	A or P	Reason (Code)
480824	AVB133-0104-1000	Vinyl chloride	J (all detects)	P	Laboratory control samples (%R) (L1)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 480824

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 480824

No Sample Data Qualified in this SDG

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB136-0102-1000**
Lab Sample Id: 480824-001

Matrix: Water
Date Collected: 03.11.14 08.00

Date Received:03.12.14 09.10

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936164

Date Prep: 03.13.14 11.04

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 19.40		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 19.40		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 19.40		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 19.40		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 19.40		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 19.40		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 19.40		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 19.40		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 19.40		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 19.40		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 19.40		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 19.40		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 19.40		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 19.40		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 19.40		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 19.40		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 19.40		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 19.40		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 19.40		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 19.40		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 19.40		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 19.40		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 19.40		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 19.40		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 19.40		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 19.40		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 19.40		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 19.40		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 19.40		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 19.40		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 19.40		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 19.40		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 19.40		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 19.40		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 19.40		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 19.40		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 19.40		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 19.40		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 19.40		1

04/22/14

Final 1.000

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB136-0102-1000**
Lab Sample Id: 480824-001

Matrix: Water
Date Collected: 03.11.14 08.00

Date Received:03.12.14 09.10

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936164

Date Prep: 03.13.14 11.04

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 19.40		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 19.40		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 19.40		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 19.40		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 19.40		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 19.40		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 19.40		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 19.40		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 19.40		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 19.40		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 19.40		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 19.40		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 19.40		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 19.40		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.13.14 19.40		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 19.40		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 19.40		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 19.40		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 19.40		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 19.40		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 19.40		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 19.40		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 19.40		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 19.40		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 19.40		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 19.40		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 19.40		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 19.40		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 19.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.13.14 19.40	
1,2-Dichloroethane-D4	17060-07-0	108	%	66-139	03.13.14 19.40	
Toluene-D8	2037-26-5	104	%	70-130	03.13.14 19.40	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.13.14 19.40	

Final 1.000

04/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB136-0100-14235** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-002 Date Collected: 03.11.14 10.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 20.06		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 20.06		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 20.06		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 20.06		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 20.06		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 20.06		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 20.06		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 20.06		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 20.06		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 20.06		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 20.06		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 20.06		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 20.06		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 20.06		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 20.06		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 20.06		1
Chloroform	67-66-3	**1.11**	0.500	ug/L	03.13.14 20.06		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 20.06		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 20.06		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 20.06		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 20.06		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 20.06		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 20.06		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 20.06		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 20.06		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 20.06		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 20.06		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 20.06		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 20.06		1
1,1-Dichloroethane	75-34-3	**1.20**	0.500	ug/L	03.13.14 20.06		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 20.06		1
1,1-Dichloroethene	75-35-4	**3.63**	0.500	ug/L	03.13.14 20.06		1
cis-1,2-Dichloroethene	156-59-2	**3.36**	0.500	ug/L	03.13.14 20.06		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 20.06		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 20.06		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 20.06		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 20.06		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 20.06		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 20.06		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB136-0100-14235**
Lab Sample Id: 480824-002

Matrix: Water
Date Collected: 03.11.14 10.35

Date Received:03.12.14 09.10

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936164

Date Prep: 03.13.14 11.04

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 20.06		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 20.06		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 20.06		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 20.06		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 20.06		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 20.06		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 20.06		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 20.06		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 20.06		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 20.06		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 20.06		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 20.06		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 20.06		1
Tetrachloroethylene	127-18-4	**6.57**	0.500	ug/L	03.13.14 20.06		1
Toluene	108-88-3	**62.8**	2.00	ug/L	03.13.14 20.06		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 20.06		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 20.06		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 20.06		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 20.06		1
Trichloroethene	79-01-6	**16.1**	0.500	ug/L	03.13.14 20.06		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 20.06		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 20.06		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 20.06		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 20.06		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 20.06		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 20.06		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 20.06		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 20.06		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 20.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	110	%	69-133	03.13.14 20.06	
1,2-Dichloroethane-D4	17060-07-0	112	%	66-139	03.13.14 20.06	
Toluene-D8	2037-26-5	106	%	70-130	03.13.14 20.06	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.13.14 20.06	

Final 1.000

03/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB121-0200-13240** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-003 Date Collected: 03.11.14 12.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 20.32		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 20.32		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 20.32		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 20.32		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 20.32		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 20.32		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 20.32		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 20.32		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 20.32		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 20.32		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 20.32		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 20.32		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 20.32		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 20.32		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 20.32		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 20.32		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 20.32		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 20.32		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 20.32		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 20.32		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 20.32		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 20.32		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 20.32		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 20.32		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 20.32		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 20.32		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 20.32		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 20.32		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 20.32		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 20.32		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 20.32		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 20.32		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 20.32		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 20.32		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 20.32		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 20.32		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 20.32		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 20.32		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 20.32		1

Final 1.000

CA 1/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB121-0200-13240** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-003 Date Collected: 03.11.14 12.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 20.32		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 20.32		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 20.32		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 20.32		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 20.32		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 20.32		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 20.32		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 20.32		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 20.32		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 20.32		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 20.32		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 20.32		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 20.32		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 20.32		1
Toluene	108-88-3	**46.7**	2.00	ug/L	03.13.14 20.32		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 20.32		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 20.32		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 20.32		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 20.32		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 20.32		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 20.32		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 20.32		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 20.32		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 20.32		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 20.32		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 20.32		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 20.32		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 20.32		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 20.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.13.14 20.32	
1,2-Dichloroethane-D4	17060-07-0	113	%	66-139	03.13.14 20.32	
Toluene-D8	2037-26-5	108	%	70-130	03.13.14 20.32	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.13.14 20.32	

03/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB137-0100-13260** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-004 Date Collected: 03.11.14 14.22

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 20.57		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 20.57		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 20.57		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 20.57		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 20.57		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 20.57		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 20.57		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 20.57		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 20.57		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 20.57		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 20.57		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 20.57		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 20.57		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 20.57		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 20.57		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 20.57		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 20.57		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 20.57		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 20.57		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 20.57		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 20.57		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 20.57		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 20.57		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 20.57		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 20.57		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 20.57		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 20.57		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 20.57		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 20.57		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 20.57		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 20.57		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 20.57		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 20.57		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 20.57		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 20.57		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 20.57		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 20.57		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 20.57		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 20.57		1

03/17/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB137-0100-13260** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-004 Date Collected: 03.11.14 14.22

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 20.57		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 20.57		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 20.57		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 20.57		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 20.57		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 20.57		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 20.57		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 20.57		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 20.57		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 20.57		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 20.57		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 20.57		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 20.57		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 20.57		1
Toluene	108-88-3	**15.6**	2.00	ug/L	03.13.14 20.57		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 20.57		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 20.57		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 20.57		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 20.57		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 20.57		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 20.57		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 20.57		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 20.57		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 20.57		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 20.57		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 20.57		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 20.57		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 20.57		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 20.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.13.14 20.57	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.13.14 20.57	
Toluene-D8	2037-26-5	108	%	70-130	03.13.14 20.57	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.13.14 20.57	

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB133-0100-16200** Matrix: Water Date Received:03.12.14 09.10
Lab Sample Id: 480824-005 Date Collected: 03.11.14 16.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 21.23		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 21.23		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 21.23		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 21.23		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 21.23		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 21.23		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 21.23		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 21.23		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 21.23		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 21.23		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 21.23		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 21.23		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 21.23		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 21.23		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 21.23		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 21.23		1
Chloroform	67-66-3	**0.620**	0.500	ug/L	03.13.14 21.23		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 21.23		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 21.23		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 21.23		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 21.23		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 21.23		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 21.23		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 21.23		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 21.23		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 21.23		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 21.23		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 21.23		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 21.23		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 21.23		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 21.23		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 21.23		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 21.23		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 21.23		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 21.23		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 21.23		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 21.23		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 21.23		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 21.23		1

CS 4/23/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB133-0100-16200** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-005 Date Collected: 03.11.14 16.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 21.23		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 21.23		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 21.23		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 21.23		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 21.23		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 21.23		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 21.23		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 21.23		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 21.23		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 21.23		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 21.23		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 21.23		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 21.23		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 21.23		1
Toluene	108-88-3	**18.0**	2.00	ug/L	03.13.14 21.23		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 21.23		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 21.23		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 21.23		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 21.23		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 21.23		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 21.23		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 21.23		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 21.23		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 21.23		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 21.23		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 21.23		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 21.23		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 21.23		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 21.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	123	%	69-133	03.13.14 21.23	
1,2-Dichloroethane-D4	17060-07-0	113	%	66-139	03.13.14 21.23	
Toluene-D8	2037-26-5	106	%	70-130	03.13.14 21.23	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.13.14 21.23	

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Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB133-0104-1000** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-006 Date Collected: 03.11.14 16.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 14.51		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 14.51		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 14.51		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 14.51		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 14.51		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 14.51		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 14.51		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 14.51		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 14.51		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 14.51		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 14.51		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 14.51		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 14.51		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 14.51		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 14.51		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 14.51		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 14.51		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 14.51		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 14.51		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 14.51		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 14.51		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 14.51		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 14.51		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 14.51		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 14.51		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 14.51		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 14.51		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 14.51		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 14.51		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 14.51		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 14.51		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 14.51		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 14.51		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 14.51		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 14.51		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 14.51		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 14.51		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 14.51		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 14.51		1

C24/24/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB133-0104-1000** Matrix: Water Date Received:03.12.14 09.10
Lab Sample Id: 480824-006 Date Collected: 03.11.14 16.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.14.14 12.26
Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 14.51		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 14.51		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 14.51		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 14.51		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 14.51		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 14.51		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 14.51		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 14.51		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 14.51		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 14.51		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 14.51		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 14.51		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 14.51		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 14.51		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 14.51		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 14.51		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 14.51		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 14.51		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 14.51		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 14.51		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 14.51		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 14.51		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 14.51		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 14.51		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 14.51		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 14.51		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 14.51		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 14.51	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 14.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.14.14 14.51	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.14.14 14.51	
Toluene-D8	2037-26-5	105	%	70-130	03.14.14 14.51	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 14.51	

03/22/14

LDC #: 31~~3~~46B1a (6)
SDG #: 480824
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/14
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	Δ	Sampling dates: 3/11/~~13~~ 14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	Δ	
VI.	Surrogate spikes	Δ	
VII.	Matrix spike/Matrix spike duplicates	Δ	
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	Δ	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 1 EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:
Water

~~1~~	AVB136-0102-1000 TB	11 1	652390-1-BLK	21		31	
2	AVB136-0100-14235	12 2	652470-1-BLK	22		32	
3	AVB121-0200-13240	13		23		33	
4	AVB137-0100-13260	14		24		34	
5	AVB133-0100-16200	15		25		35	
~~6~~ 2	AVB133-0104-1000 EB	16		26		36	
7	AVB133-0104-1000MS	17		27		37	
8	AVB133-0104-1000MSD	18		28		38	
9		19		29		39	
10		20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC #: 31646B1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: 2

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652470-LCS ID	C	( )	122 (43-120)	( )	6,	J/Pdet (1)
			( )	( )	( )	652470-1-BLK	
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 11, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Chromium

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 480824

Sample Identification

AVB136-0100-14235
AVB121-0200-13240
AVB137-0100-13260
AVB133-0100-16200
AVB133-0104-1000
AVB136-0100-14235F
AVB121-0200-13240F
AVB137-0100-13260F
AVB133-0100-16200F
AVB133-0104-1000F

Sample IDs appended with "F" were analyzed for dissolved chromium.

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Chromium.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Level III.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No chromium was found in the preparation blanks.

Samples AVB133-0104-1000 and AVB133-0104-1000F were identified as equipment blanks. No chromium was found.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for Level III.

V. Matrix Spike Analysis

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

IX. Sample Result Verification

Raw data was not reviewed for this SDG.

X. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Chromium - Data Qualification Summary - SDG 480824

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Laboratory Blank Data Qualification Summary - SDG 480824

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Field Blank Data Qualification Summary - SDG 480824

No Sample Data Qualified in this SDG

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB136-0100-14235** Matrix: Water Date Received:03.12.14 09.10
Lab Sample Id: 480824-002 Date Collected: 03.11.14 10.35

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.18.14 11.00
Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.18.14 16.51		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.19.14 14.10
Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.19.14 23.48		1

CR 4/21/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB121-0200-13240** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-003 Date Collected: 03.11.14 12.35

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.18.14 11.00

Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.18.14 18.15		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.19.14 14.10

Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.19.14 23.53		1

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB137-0100-13260** Matrix: Water Date Received:03.12.14 09.10
Lab Sample Id: 480824-004 Date Collected: 03.11.14 14.22

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.18.14 11.00
Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0163**	0.0100	mg/L	03.18.14 18.21		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.19.14 14.10
Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.19.14 23.59		1

Final 1.000

CRW 3/26/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB133-0100-16200** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-005 Date Collected: 03.11.14 16.35

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.18.14 11.00

Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.18.14 18.27		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.19.14 14.10

Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 00.05		1

Final 1.000

CS 4/28/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB133-0104-1000** Matrix: Water Date Received:03.12.14 09.10
Lab Sample Id: 480824-006 Date Collected: 03.11.14 16.40

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.18.14 11.00
Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.18.14 18.33		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.19.14 14.10
Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 00.11		1

03/24/14

LDC #: 31346B4 (6)
SDG #: 480824
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/14
Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: Chromium (EPA SW846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/11/14
II.	Calibration	N	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Matrix Spike Analysis	N	CS
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS/D
~~VIII.~~	~~Internal Standard (ICP-MS)~~	~~N~~	
IX.	ICP Serial Dilution	N	
X.	Sample Result Verification	N	
XI.	Overall Assessment of Data	A	
XII.	Field Duplicates	N	
XIII.	Field Blanks	ND	EB=5,10

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB136-0100-14235	11		21		11	
2	AVB121-0200-13240	12		22		12	
3	AVB137-0100-13260	13		23		13	
4	AVB133-0100-16200	14		24		14	
5	AVB133-0104-1000	15		25		15	
6	AVB136-0100-14235F	16		26		16	
7	AVB121-0200-13240F	17		27		17	
8	AVB137-0100-13260F	18		28		18	
9	AVB133-0100-16200F	19		29		19	
10	AVB133-0104-1000F	20		30		20	

Notes: Samples appended with "F" were analyzed for dissolved chromium

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 12, 2014
LDC Report Date:	April 22, 2014
Matrix:	Water
Parameters:	Volatiles
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	480973

Sample Identification

AVB142-0102-1000
AVB142-0100-11335
AVB82-0100-24327
AVB82-0200-12410
AVB82-0201-12410
AVB91-0300-12360
AVB122-0300-18330
AVB122-0304-1000

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB142-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB122-0304-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652470-LCS/D (All samples in SDG 480973)	Vinyl chloride	-	122 (43-120)	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples AVB82-0200-12410 and AVB82-0201-12410 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB82-0200-12410	AVB82-0201-12410			
1,1-Dichloroethene	0.920	0.890	3 (≤20)	-	-
Tetrachloroethene	3.96	3.99	1 (≤20)	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB82-0200-12410	AVB82-0201-12410			
Toluene	28.7	29.3	2 (≤20)	-	-

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 480973

SDG	Sample	Compound	Flag	A or P	Reason (Code)
480973	AVB142-0102-1000 AVB142-0100-11335 AVB82-0100-24327 AVB82-0200-12410 AVB82-0201-12410 AVB91-0300-12360 AVB122-0300-18330 AVB122-0304-1000	Vinyl chloride	J (all detects)	P	Laboratory control samples (%R) (L1)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 480973

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 480973

No Sample Data Qualified in this SDG

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB142-0102-1000** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-001 Date Collected: 03.12.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 16.34		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 16.34		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 16.34		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 16.34		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 16.34		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 16.34		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 16.34		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 16.34		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 16.34		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 16.34		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 16.34		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 16.34		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 16.34		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 16.34		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 16.34		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 16.34		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 16.34		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 16.34		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 16.34		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 16.34		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 16.34		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 16.34		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 16.34		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 16.34		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 16.34		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 16.34		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 16.34		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 16.34		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 16.34		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 16.34		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 16.34		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 16.34		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 16.34		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 16.34		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 16.34		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 16.34		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 16.34		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 16.34		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 16.34		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB142-0102-1000** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-001 Date Collected: 03.12.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 16.34		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 16.34		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 16.34		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 16.34		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 16.34		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 16.34		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 16.34		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 16.34		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 16.34		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 16.34		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 16.34		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 16.34		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 16.34		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 16.34		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 16.34		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 16.34		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 16.34		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 16.34		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 16.34		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 16.34		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 16.34		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 16.34		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 16.34		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 16.34		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 16.34		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 16.34		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 16.34		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 16.34	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 16.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	69-133	03.14.14 16.34	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.14.14 16.34	
Toluene-D8	2037-26-5	108	%	70-130	03.14.14 16.34	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 16.34	

CR 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB142-0100-11335** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-002 Date Collected: 03.12.14 07.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 17.00		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 17.00		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 17.00		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 17.00		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 17.00		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 17.00		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 17.00		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 17.00		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 17.00		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 17.00		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 17.00		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 17.00		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 17.00		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 17.00		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 17.00		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 17.00		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 17.00		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 17.00		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 17.00		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 17.00		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 17.00		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 17.00		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 17.00		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 17.00		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 17.00		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 17.00		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 17.00		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 17.00		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 17.00		1
1,1-Dichloroethane	75-34-3	**1.71**	0.500	ug/L	03.14.14 17.00		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 17.00		1
1,1-Dichloroethene	75-35-4	**4.73**	0.500	ug/L	03.14.14 17.00		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 17.00		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 17.00		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 17.00		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 17.00		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 17.00		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 17.00		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 17.00		1

Final 1.000

S24/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB142-0100-11335** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-002 Date Collected: 03.12.14 07.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 17.00		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 17.00		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 17.00		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 17.00		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 17.00		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 17.00		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 17.00		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 17.00		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 17.00		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 17.00		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 17.00		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 17.00		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 17.00		1
Tetrachloroethylene	127-18-4	**8.96**	0.500	ug/L	03.14.14 17.00		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 17.00		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 17.00		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 17.00		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 17.00		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 17.00		1
Trichloroethene	79-01-6	**4.06**	0.500	ug/L	03.14.14 17.00		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 17.00		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 17.00		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 17.00		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 17.00		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 17.00		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 17.00		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 17.00		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 17.00	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 17.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	69-133	03.14.14 17.00	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.14.14 17.00	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 17.00	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 17.00	

CL 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0100-24327** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-003 Date Collected: 03.12.14 09.55

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 17.26		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 17.26		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 17.26		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 17.26		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 17.26		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 17.26		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 17.26		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 17.26		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 17.26		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 17.26		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 17.26		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 17.26		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 17.26		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 17.26		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 17.26		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 17.26		1
Chloroform	67-66-3	**1.22**	0.500	ug/L	03.14.14 17.26		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 17.26		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 17.26		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 17.26		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 17.26		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 17.26		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 17.26		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 17.26		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 17.26		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 17.26		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 17.26		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 17.26		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 17.26		1
1,1-Dichloroethane	75-34-3	**1.10**	0.500	ug/L	03.14.14 17.26		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 17.26		1
1,1-Dichloroethene	75-35-4	**27.7**	0.500	ug/L	03.14.14 17.26		1
cis-1,2-Dichloroethene	156-59-2	**1.42**	0.500	ug/L	03.14.14 17.26		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 17.26		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 17.26		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 17.26		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 17.26		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 17.26		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 17.26		1

Final 1.000 CW 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0100-24327** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-003 Date Collected: 03.12.14 09.55

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 17.26		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 17.26		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 17.26		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 17.26		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 17.26		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 17.26		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 17.26		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 17.26		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 17.26		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 17.26		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 17.26		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 17.26		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 17.26		1
Tetrachloroethylene	127-18-4	**68.1**	0.500	ug/L	03.14.14 17.26		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 17.26		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 17.26		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 17.26		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 17.26		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 17.26		1
Trichloroethene	79-01-6	**22.9**	0.500	ug/L	03.14.14 17.26		1
Trichlorofluoromethane	75-69-4	**4.14**	2.00	ug/L	03.14.14 17.26		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 17.26		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 17.26		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 17.26		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 17.26		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 17.26		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 17.26		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 17.26	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 17.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.14.14 17.26	
1,2-Dichloroethane-D4	17060-07-0	112	%	66-139	03.14.14 17.26	
Toluene-D8	2037-26-5	109	%	70-130	03.14.14 17.26	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 17.26	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0200-12410** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-004 Date Collected: 03.12.14 11.15

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 17.52		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 17.52		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 17.52		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 17.52		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 17.52		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 17.52		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 17.52		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 17.52		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 17.52		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 17.52		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 17.52		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 17.52		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 17.52		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 17.52		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 17.52		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 17.52		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 17.52		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 17.52		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 17.52		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 17.52		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 17.52		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 17.52		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 17.52		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 17.52		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 17.52		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 17.52		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 17.52		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 17.52		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 17.52		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 17.52		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 17.52		1
1,1-Dichloroethene	75-35-4	**0.920**	0.500	ug/L	03.14.14 17.52		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 17.52		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 17.52		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 17.52		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 17.52		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 17.52		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 17.52		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 17.52		1

C24/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0200-12410** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-004 Date Collected: 03.12.14 11.15

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 17.52		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 17.52		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 17.52		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 17.52		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 17.52		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 17.52		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 17.52		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 17.52		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 17.52		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 17.52		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 17.52		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 17.52		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 17.52		1
Tetrachloroethylene	127-18-4	**3.96**	0.500	ug/L	03.14.14 17.52		1
Toluene	108-88-3	**28.7**	2.00	ug/L	03.14.14 17.52		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 17.52		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 17.52		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 17.52		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 17.52		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 17.52		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 17.52		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 17.52		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 17.52		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 17.52		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 17.52		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 17.52		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 17.52		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 17.52	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 17.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	69-133	03.14.14 17.52	
1,2-Dichloroethane-D4	17060-07-0	108	%	66-139	03.14.14 17.52	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 17.52	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 17.52	

Final 1.000

CL 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0201-12410** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-005 Date Collected: 03.12.14 11.20

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 18.18		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 18.18		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 18.18		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 18.18		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 18.18		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 18.18		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 18.18		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 18.18		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 18.18		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 18.18		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 18.18		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 18.18		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 18.18		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 18.18		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 18.18		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 18.18		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 18.18		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 18.18		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 18.18		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 18.18		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 18.18		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 18.18		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 18.18		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 18.18		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 18.18		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 18.18		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 18.18		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 18.18		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 18.18		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 18.18		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 18.18		1
1,1-Dichloroethene	75-35-4	**0.890**	0.500	ug/L	03.14.14 18.18		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 18.18		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 18.18		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 18.18		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 18.18		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 18.18		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 18.18		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 18.18		1

Final 1.000

CZ 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0201-12410** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-005 Date Collected: 03.12.14 11.20

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 18.18		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 18.18		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 18.18		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 18.18		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 18.18		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 18.18		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 18.18		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 18.18		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 18.18		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 18.18		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 18.18		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 18.18		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 18.18		1
Tetrachloroethylene	127-18-4	**3.99**	0.500	ug/L	03.14.14 18.18		1
Toluene	108-88-3	**29.3**	2.00	ug/L	03.14.14 18.18		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 18.18		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 18.18		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 18.18		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 18.18		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 18.18		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 18.18		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 18.18		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 18.18		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 18.18		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 18.18		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 18.18		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 18.18		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 18.18	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 18.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.14.14 18.18	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.14.14 18.18	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 18.18	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 18.18	

04/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0300-12360** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-006 Date Collected: 03.12.14 13.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 18.43		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 18.43		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 18.43		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 18.43		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 18.43		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 18.43		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 18.43		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 18.43		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 18.43		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 18.43		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 18.43		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 18.43		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 18.43		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 18.43		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 18.43		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 18.43		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 18.43		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 18.43		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 18.43		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 18.43		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 18.43		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 18.43		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 18.43		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 18.43		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 18.43		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 18.43		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 18.43		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 18.43		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 18.43		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 18.43		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 18.43		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 18.43		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 18.43		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 18.43		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 18.43		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 18.43		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 18.43		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 18.43		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 18.43		1

Final 1.000

CL 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0300-12360** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-006 Date Collected: 03.12.14 13.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 18.43		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 18.43		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 18.43		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 18.43		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 18.43		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 18.43		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 18.43		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 18.43		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 18.43		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 18.43		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 18.43		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 18.43		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 18.43		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 18.43		1
Toluene	108-88-3	**97.7**	2.00	ug/L	03.14.14 18.43		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 18.43		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 18.43		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 18.43		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 18.43		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 18.43		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 18.43		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 18.43		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 18.43		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 18.43		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 18.43		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 18.43		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 18.43		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 18.43	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 18.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	112	%	69-133	03.14.14 18.43	
1,2-Dichloroethane-D4	17060-07-0	114	%	66-139	03.14.14 18.43	
Toluene-D8	2037-26-5	108	%	70-130	03.14.14 18.43	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 18.43	

CL 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0300-18330** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-007 Date Collected: 03.12.14 15.55

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 19.09		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 19.09		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 19.09		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 19.09		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 19.09		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 19.09		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 19.09		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 19.09		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 19.09		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 19.09		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 19.09		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 19.09		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 19.09		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 19.09		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 19.09		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 19.09		1
Chloroform	67-66-3	**1.25**	0.500	ug/L	03.14.14 19.09		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 19.09		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 19.09		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 19.09		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 19.09		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 19.09		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 19.09		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 19.09		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 19.09		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 19.09		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 19.09		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 19.09		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 19.09		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 19.09		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 19.09		1
1,1-Dichloroethene	75-35-4	**1.23**	0.500	ug/L	03.14.14 19.09		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 19.09		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 19.09		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 19.09		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 19.09		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 19.09		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 19.09		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 19.09		1

CL 4/22/14

Final 1.000

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0300-18330** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-007 Date Collected: 03.12.14 15.55

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 19.09		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 19.09		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 19.09		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 19.09		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 19.09		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 19.09		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 19.09		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 19.09		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 19.09		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 19.09		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 19.09		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 19.09		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 19.09		1
Tetrachloroethylene	127-18-4	**3.37**	0.500	ug/L	03.14.14 19.09		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 19.09		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 19.09		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 19.09		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 19.09		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 19.09		1
Trichloroethene	79-01-6	**2.98**	0.500	ug/L	03.14.14 19.09		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 19.09		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 19.09		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 19.09		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 19.09		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 19.09		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 19.09		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 19.09		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 19.09	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 19.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.14.14 19.09	
1,2-Dichloroethane-D4	17060-07-0	109	%	66-139	03.14.14 19.09	
Toluene-D8	2037-26-5	105	%	70-130	03.14.14 19.09	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 19.09	

CR 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0304-1000** Matrix: Water Date Received:03.12.14 17.03
Lab Sample Id: 480973-008 Date Collected: 03.12.14 16.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.14.14 12.26
Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 19.35		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 19.35		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 19.35		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 19.35		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 19.35		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 19.35		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 19.35		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 19.35		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 19.35		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 19.35		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 19.35		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 19.35		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 19.35		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 19.35		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 19.35		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 19.35		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 19.35		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 19.35		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 19.35		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 19.35		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 19.35		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 19.35		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 19.35		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 19.35		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 19.35		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 19.35		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 19.35		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 19.35		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 19.35		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 19.35		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 19.35		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 19.35		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 19.35		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 19.35		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 19.35		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 19.35		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 19.35		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 19.35		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 19.35		1

04/22/14

Final 1.000

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0304-1000** Matrix: Water Date Received:03.12.14 17.03
Lab Sample Id: 480973-008 Date Collected: 03.12.14 16.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.14.14 12.26
Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 19.35		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 19.35		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 19.35		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 19.35		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 19.35		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 19.35		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 19.35		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 19.35		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 19.35		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 19.35		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 19.35		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 19.35		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 19.35		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 19.35		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 19.35		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 19.35		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 19.35		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 19.35		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 19.35		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 19.35		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 19.35		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 19.35		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 19.35		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 19.35		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 19.35		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 19.35		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 19.35		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 19.35	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 19.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	69-133	03.14.14 19.35	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.14.14 19.35	
Toluene-D8	2037-26-5	107	%	70-130	03.14.14 19.35	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 19.35	

CL 4/22/14

LDC #: 31~~3~~46C1a (6) **VALIDATION COMPLETENESS WORKSHEET** Date: 4/17/14

SDG #: 480973 Level III Page: 1 of 1

Laboratory: Xenco Laboratories Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/12/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A ~~N~~	~~client specified~~ 480824-006 MS/D
VIII.	Laboratory control samples	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 4,5
XVII.	Field blanks	ND	TB = 1 EB = 8

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	AVB142-0102-1000 TB	11	652470-1-BLK	21		31	
2	AVB142-0100-11335	12		22		32	
3	AVB82-0100-24327	13		23		33	
4	AVB82-0200-12410 D	14		24		34	
5	AVB82-0201-12410 D	15		25		35	
6	AVB91-0300-12360	16		26		36	
7	AVB122-0300-18330	17		27		37	
8	AVB122-0304-1000 EB	18		28		38	
9		19		29		39	
10		20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC #: 31646C/a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: CR

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652470-	C	( )	122 (43-120)	( )	All	J/Pdet (L1)
	lcs ID		( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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LDC #: 31646cla

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: FT
2nd reviewer: CN

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD (≤ 20 %	Qualifications (Parent only)
	4	5		
H	0.920	0.890	3	
AA	3.96	3.99	1	
CC	28.7	29.3	2	

Compound	Concentration ( )		RPD (≤ %	Qualifications (Parent only)

Compound	Concentration ( )		RPD (≤ %	Qualifications (Parent only)

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 12, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Chromium

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 480973

Sample Identification

AVB142-0100-11335
AVB82-0200-12410
AVB82-0201-12410
AVB91-0300-12360
AVB122-0300-18330
AVB122-0304-1000
AVB142-0100-11335F
AVB82-0200-12410F
AVB82-0201-12410F
AVB91-0300-12360F
AVB122-0300-18330F
AVB122-0304-1000F

Sample IDs appended with "F" were analyzed for dissolved chromium.

Introduction

This data review covers 12 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Chromium.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Level III.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No chromium was found in the preparation blanks.

Samples AVB122-0304-1000 and AVB122-0304-1000F were identified as equipment blanks. No chromium was found.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for Level III.

V. Matrix Spike Analysis

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

IX. Sample Result Verification

Raw data was not reviewed for this SDG.

X. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XI. Field Duplicates

Samples AVB82-0200-12410 and AVB82-0201-12410 and samples AVB82-0200-12410F and AVB82-0201-12410F were identified as field duplicates. No chromium was detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
	AVB82-0200-12410	AVB82-0201-12410			
Chromium	0.0135	0.0143	6 (≤20)	-	-

West Van Buren Area
Chromium - Data Qualification Summary - SDG 480973

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Laboratory Blank Data Qualification Summary - SDG 480973

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Field Blank Data Qualification Summary - SDG 480973

No Sample Data Qualified in this SDG

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB142-0100-11335** Matrix: Water Date Received:03.12.14 17.03
Lab Sample Id: 480973-002 Date Collected: 03.12.14 07.45

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.18.14 11.00
Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0132**	0.0100	mg/L	03.18.14 18.39		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.19.14 14.10
Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 00.29		1

CR4/21/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0200-12410** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-004 Date Collected: 03.12.14 11.15

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.18.14 11.00

Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0135**	0.0100	mg/L	03.18.14 18.45		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.19.14 14.10

Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 00.35		1

CR 4/21/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0201-12410** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-005 Date Collected: 03.12.14 11.20

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.18.14 11.00

Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0143**	0.0100	mg/L	03.18.14 18.50		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.19.14 14.10

Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 00.41		1

024/21/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0300-12360** Matrix: Water Date Received:03.12.14 17.03
Lab Sample Id: 480973-006 Date Collected: 03.12.14 13.45

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.18.14 11.00
Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0215**	0.0100	mg/L	03.18.14 18.56		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.19.14 14.10
Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 00.47		1

C24/21/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0300-18330** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-007 Date Collected: 03.12.14 15.55

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.18.14 11.00

Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0414**	0.0100	mg/L	03.18.14 19.02		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.19.14 14.10

Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 00.52		1

C24/21/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0304-1000** Matrix: Water Date Received:03.12.14 17.03
Lab Sample Id: 480973-008 Date Collected: 03.12.14 16.00

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.18.14 11.00
Seq Number: 936451 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.18.14 19.08		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.19.14 14.10
Seq Number: 936591 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 00.58		1

C24/21/14

LDC #: 31346C4 (6)
SDG #: 480973
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/14
Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Chromium (EPA SW846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/12/14
II.	Calibration	N	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Matrix Spike Analysis	N	CS
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS/D
VIII.	Internal Standard (ICP-MS)	N	
IX.	ICP Serial Dilution	N	
X.	Sample Result Verification	N	
XI.	Overall Assessment of Data	A	
XII.	Field Duplicates	SW	(2,3), (8,9)
XIII.	Field Blanks	ND	EB: 6,12

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB142-0100-11335	11	AVB122-0300-18330F	21		11	
2	AVB82-0200-12410	12	AVB122-0304-1000F	22		12	
3	AVB82-0201-12410	13		23		13	
4	AVB91-0300-12360	14		24		14	
5	AVB122-0300-18330	15		25		15	
6	AVB122-0304-1000	16		26		16	
7	AVB142-0100-11335F	17		27		17	
8	AVB82-0200-12410F	18		28		18	
9	AVB82-0201-12410F	19		29		19	
10	AVB91-0300-12360F	20		30		20	

Notes: Samples appended with "F" were analyzed for dissolved chromium

LDC#: 31646C4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: CL
2nd Reviewer: V

METHOD: Metals (EPA Method 6010B)

Analyte	Concentration (mg/L)		RPD (≤20)	Qualifiers (Parents Only)
	2	3		
Chromium	0.0135	0.0143	6	

\\LDCFILESERVER\Validation\FIELD DUPLICATES\FD_inorganic\31646C4.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 13, 2014
LDC Report Date:	April 22, 2014
Matrix:	Water
Parameters:	Volatiles
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481073

Sample Identification

AVB139-0102-1000
AVB139-0100-13290
AVB61-0100-32450
AVB10-0200-38290
AVB10-0100-39120
AVB10-0104-1000

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB142-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB122-0304-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652470-LCS/D (All samples in SDG 481073)	Vinyl chloride	-	122 (43-120)	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481073

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481073	AVB139-0102-1000 AVB139-0100-13290 AVB61-0100-32450 AVB10-0200-38290 AVB10-0100-39120 AVB10-0104-1000	Vinyl chloride	J (all detects)	P	Laboratory control samples (%R) (L1)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481073

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481073

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB139-0102-1000** Matrix: Water Date Received:03.13.14 14.49
Lab Sample Id: 481073-001 Date Collected: 03.13.14 07.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.14.14 12.26
Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 20.01		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 20.01		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 20.01		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 20.01		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 20.01		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 20.01		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 20.01		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 20.01		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 20.01		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 20.01		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 20.01		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 20.01		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 20.01		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 20.01		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 20.01		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 20.01		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 20.01		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 20.01		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 20.01		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 20.01		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 20.01		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 20.01		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 20.01		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 20.01		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 20.01		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 20.01		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 20.01		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 20.01		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 20.01		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 20.01		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 20.01		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 20.01		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 20.01		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 20.01		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 20.01		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 20.01		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 20.01		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 20.01		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 20.01		1

Final 1.000

04/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB139-0102-1000** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-001 Date Collected: 03.13.14 07.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 20.01		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 20.01		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 20.01		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 20.01		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 20.01		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 20.01		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 20.01		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 20.01		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 20.01		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 20.01		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 20.01		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 20.01		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 20.01		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 20.01		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 20.01		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 20.01		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 20.01		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 20.01		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 20.01		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 20.01		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 20.01		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 20.01		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 20.01		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 20.01		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 20.01		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 20.01		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 20.01		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 20.01	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 20.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	110	%	69-133	03.14.14 20.01	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.14.14 20.01	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 20.01	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 20.01	

Final 1.000

cl 4/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB139-0100-13290**
Lab Sample Id: 481073-002

Matrix: Water
Date Collected: 03.13.14 07.42

Date Received:03.13.14 14.49

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936404

Date Prep: 03.14.14 12.26

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 20.26		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 20.26		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 20.26		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 20.26		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 20.26		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 20.26		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 20.26		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 20.26		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 20.26		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 20.26		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 20.26		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 20.26		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 20.26		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 20.26		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 20.26		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 20.26		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 20.26		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 20.26		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 20.26		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 20.26		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 20.26		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 20.26		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 20.26		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 20.26		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 20.26		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 20.26		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 20.26		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 20.26		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 20.26		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 20.26		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 20.26		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 20.26		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 20.26		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 20.26		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 20.26		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 20.26		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 20.26		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 20.26		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 20.26		1

Final 1.000

CA 4/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB139-0100-13290** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-002 Date Collected: 03.13.14 07.42

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 20.26		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 20.26		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 20.26		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 20.26		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 20.26		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 20.26		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 20.26		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 20.26		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 20.26		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 20.26		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 20.26		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 20.26		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 20.26		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 20.26		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 20.26		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 20.26		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 20.26		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 20.26		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 20.26		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 20.26		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 20.26		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 20.26		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 20.26		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 20.26		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 20.26		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 20.26		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 20.26		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 20.26	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 20.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	113	%	69-133	03.14.14 20.26	
1,2-Dichloroethane-D4	17060-07-0	114	%	66-139	03.14.14 20.26	
Toluene-D8	2037-26-5	109	%	70-130	03.14.14 20.26	
4-Bromofluorobenzene	460-00-4	98	%	70-135	03.14.14 20.26	

CLY 12/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB61-0100-32450** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-003 Date Collected: 03.13.14 10.07

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 20.52		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 20.52		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 20.52		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 20.52		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 20.52		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 20.52		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 20.52		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 20.52		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 20.52		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 20.52		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 20.52		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 20.52		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 20.52		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 20.52		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 20.52		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 20.52		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 20.52		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 20.52		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 20.52		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 20.52		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 20.52		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 20.52		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 20.52		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 20.52		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 20.52		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 20.52		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 20.52		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 20.52		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 20.52		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 20.52		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 20.52		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 20.52		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 20.52		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 20.52		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 20.52		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 20.52		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 20.52		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 20.52		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 20.52		1

Final 1.000

03/14/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB61-0100-32450** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-003 Date Collected: 03.13.14 10.07

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 20.52		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 20.52		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 20.52		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 20.52		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 20.52		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 20.52		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 20.52		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 20.52		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 20.52		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 20.52		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 20.52		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 20.52		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 20.52		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 20.52		1
Toluene	108-88-3	**18.9**	2.00	ug/L	03.14.14 20.52		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 20.52		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 20.52		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 20.52		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 20.52		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 20.52		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 20.52		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 20.52		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 20.52		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 20.52		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 20.52		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 20.52		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 20.52		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 20.52	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 20.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	69-133	03.14.14 20.52	
1,2-Dichloroethane-D4	17060-07-0	111	%	66-139	03.14.14 20.52	
Toluene-D8	2037-26-5	105	%	70-130	03.14.14 20.52	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 20.52	

CW 12/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0200-38290** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-004 Date Collected: 03.13.14 12.22

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 21.18		1
Benzene	71-43-2	**0.800**	0.500	ug/L	03.14.14 21.18		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 21.18		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 21.18		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 21.18		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 21.18		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 21.18		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 21.18		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 21.18		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 21.18		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 21.18		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 21.18		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 21.18		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 21.18		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 21.18		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 21.18		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 21.18		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 21.18		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 21.18		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 21.18		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 21.18		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 21.18		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 21.18		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 21.18		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 21.18		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 21.18		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 21.18		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 21.18		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 21.18		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 21.18		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 21.18		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 21.18		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 21.18		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 21.18		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 21.18		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 21.18		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 21.18		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 21.18		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 21.18		1

Final 1.000

03/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0200-38290** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-004 Date Collected: 03.13.14 12.22

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 21.18		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 21.18		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 21.18		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 21.18		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 21.18		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 21.18		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 21.18		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 21.18		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 21.18		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 21.18		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 21.18		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 21.18		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 21.18		1
Tetrachloroethylene	127-18-4	**2.59**	0.500	ug/L	03.14.14 21.18		1
Toluene	108-88-3	**75.7**	2.00	ug/L	03.14.14 21.18		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 21.18		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 21.18		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 21.18		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 21.18		1
Trichloroethene	79-01-6	**1.08**	0.500	ug/L	03.14.14 21.18		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 21.18		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 21.18		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 21.18		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 21.18		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 21.18		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 21.18		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 21.18		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 21.18	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 21.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.14.14 21.18	
1,2-Dichloroethane-D4	17060-07-0	111	%	66-139	03.14.14 21.18	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 21.18	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 21.18	

Final 1.000

CR4/23/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0100-39120** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-005 Date Collected: 03.13.14 13.37

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 21.44		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 21.44		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 21.44		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 21.44		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 21.44		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 21.44		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 21.44		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 21.44		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 21.44		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 21.44		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 21.44		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 21.44		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 21.44		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 21.44		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 21.44		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 21.44		1
Chloroform	67-66-3	**0.590**	0.500	ug/L	03.14.14 21.44		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 21.44		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 21.44		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 21.44		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 21.44		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 21.44		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 21.44		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 21.44		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 21.44		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 21.44		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 21.44		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 21.44		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 21.44		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 21.44		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 21.44		1
1,1-Dichloroethene	75-35-4	**0.870**	0.500	ug/L	03.14.14 21.44		1
cis-1,2-Dichloroethene	156-59-2	**0.520**	0.500	ug/L	03.14.14 21.44		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 21.44		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 21.44		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 21.44		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 21.44		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 21.44		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 21.44		1

Final 1.000

04/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0100-39120**
Lab Sample Id: 481073-005

Matrix: Water
Date Collected: 03.13.14 13.37

Date Received:03.13.14 14.49

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936404

Date Prep: 03.14.14 12.26

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 21.44		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 21.44		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 21.44		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 21.44		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 21.44		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 21.44		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 21.44		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 21.44		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 21.44		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 21.44		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 21.44		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 21.44		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 21.44		1
Tetrachloroethylene	127-18-4	**16.5**	0.500	ug/L	03.14.14 21.44		1
Toluene	108-88-3	**23.2**	2.00	ug/L	03.14.14 21.44		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 21.44		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 21.44		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 21.44		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 21.44		1
Trichloroethene	79-01-6	**1.87**	0.500	ug/L	03.14.14 21.44		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 21.44		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 21.44		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 21.44		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 21.44		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 21.44		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 21.44		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 21.44		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 21.44	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 21.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	116	%	69-133	03.14.14 21.44	
1,2-Dichloroethane-D4	17060-07-0	120	%	66-139	03.14.14 21.44	
Toluene-D8	2037-26-5	108	%	70-130	03.14.14 21.44	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 21.44	

Final 1.000

CLY/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0104-1000** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-006 Date Collected: 03.13.14 13.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 22.10		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 22.10		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 22.10		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 22.10		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 22.10		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 22.10		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 22.10		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 22.10		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 22.10		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 22.10		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 22.10		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 22.10		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 22.10		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 22.10		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 22.10		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 22.10		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 22.10		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 22.10		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 22.10		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 22.10		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 22.10		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 22.10		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 22.10		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 22.10		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 22.10		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 22.10		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 22.10		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 22.10		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 22.10		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 22.10		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 22.10		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 22.10		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 22.10		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 22.10		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 22.10		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 22.10		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 22.10		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 22.10		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 22.10		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0104-1000** Matrix: Water Date Received:03.13.14 14.49
Lab Sample Id: 481073-006 Date Collected: 03.13.14 13.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.14.14 12.26
Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 22.10		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 22.10		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 22.10		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 22.10		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 22.10		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 22.10		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 22.10		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 22.10		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 22.10		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 22.10		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 22.10		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 22.10		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 22.10		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 22.10		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 22.10		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 22.10		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 22.10		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 22.10		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 22.10		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 22.10		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 22.10		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 22.10		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 22.10		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 22.10		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 22.10		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 22.10		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 22.10		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 22.10	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 22.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	111	%	69-133	03.14.14 22.10	
1,2-Dichloroethane-D4	17060-07-0	112	%	66-139	03.14.14 22.10	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 22.10	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 22.10	

Final 1.000

04/22/14

LDC #: 31346D1a

SDG #: 481073

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/18/14

Page: 1 of 1

Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/13/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	480824-006 MS/D
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 1 EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: walk

1	AVB139-0102-1000 TB	11	652470-1-BLK	21		31	
2	AVB139-0100-13290	12		22		32	
3	AVB61-0100-32450	13		23		33	
4	AVB10-0200-38290	14		24		34	
5	AVB10-0100-39120	15		25		35	
6	AVB10-0104-1000 EB	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC #: 31646D1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: CZ

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652470-lcs1D	C	( )	122 (43-120)	( )	All	J/Det (L1)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 13, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Chromium

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 481073

Sample Identification

AVB139-0100-13290
AVB61-0100-32450
AVB10-0200-38290
AVB10-0100-39120
AVB10-0104-1000
AVB139-0100-13290F
AVB61-0100-32450F
AVB10-0200-38290F
AVB10-0100-39120F
AVB10-0104-1000F
AVB139-0100-13290MS
AVB139-0100-13290MSD
AVB10-0100-39120MS
AVB10-0100-39120MSD

Sample IDs appended with "F" were analyzed for dissolved chromium.

Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Chromium.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Level III.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No chromium was found in the preparation blanks.

Samples AVB10-0104-1000 and AVB10-0104-1000F were identified as equipment blanks. No chromium was found.

IV. Matrix Spike Analysis

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

V. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VI. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

VIII. Sample Result Verification

Raw data was not reviewed for this SDG.

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Chromium - Data Qualification Summary - SDG 481073

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Laboratory Blank Data Qualification Summary - SDG 481073

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Field Blank Data Qualification Summary - SDG 481073

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB139-0100-13290** Matrix: Water Date Received:03.13.14 14.49
Lab Sample Id: 481073-002 Date Collected: 03.13.14 07.42

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0260**	0.0100	mg/L	03.20.14 15.49		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 16.53		1

CR 4/21/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB61-0100-32450** Matrix: Water Date Received:03.13.14 14.49
Lab Sample Id: 481073-003 Date Collected: 03.13.14 10.07

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0484**	0.0100	mg/L	03.20.14 16.24		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 16.59		1

CR 4/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0200-38290** Matrix: Water Date Received:03.13.14 14.49
Lab Sample Id: 481073-004 Date Collected: 03.13.14 12.22

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 16.42		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 17.05		1

0224/24/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0100-39120** Matrix: Water Date Received:03.13.14 14.49
Lab Sample Id: 481073-005 Date Collected: 03.13.14 13.37

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.21.14 13.30
Seq Number: 936814 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.22.14 01.45		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 17.11		1

CS 4/21/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0104-1000** Matrix: Water Date Received:03.13.14 14.49
Lab Sample Id: 481073-006 Date Collected: 03.13.14 13.45

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 16.47		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.20.14 17.17		1

CR 4/21/14

LDC #: 31346D4 **VALIDATION COMPLETENESS WORKSHEET** Date: 4/17/14
SDG #: 481073 Level III Page: 1 of 1
Laboratory: Xenco Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Chromium (EPA SW846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/13/14
II.	Calibration	N	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Matrix Spike Analysis	A	MS/D
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS/D
~~VIII.~~	~~Internal Standard (ICP-MS)~~	~~N~~	
IX.	ICP Serial Dilution	N	
X.	Sample Result Verification	N	
XI.	Overall Assessment of Data	A	
XII.	Field Duplicates	N	
XIII.	Field Blanks	ND	EB = 5, 10

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB139-0100-13290	11	AVB139-0100-13290MS	21		11	
2	AVB61-0100-32450	12	AVB139-0100-13290MSD	22		12	
3	AVB10-0200-38290	13	AVB10-0100-39120MS	23		13	
4	AVB10-0100-39120	14	AVB10-0100-39120MSD	24		14	
5	AVB10-0104-1000	15		25		15	
6	AVB139-0100-13290F	16		26		16	
7	AVB61-0100-32450F	17		27		17	
8	AVB10-0200-38290F	18		28		18	
9	AVB10-0100-39120F	19		29		19	
10	AVB10-0104-1000F	20		30		20	

Notes: Samples appended with "F" were analyzed for dissolved chromium

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 14, 2014
LDC Report Date:	April 21, 2014
Matrix:	Water
Parameters:	Volatiles
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481201

Sample Identification

AVB141-0102-1000
AVB141-0100-13285
AVB116-0201-19205
AVB116-0200-19205
AVB132-0200-15280
AVB132-0104-1000
AVB141-0100-13285MS
AVB141-0100-13285MSD

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB141-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB132-0104-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
AVB141-0100-13285MS/MSD (AVB141-0100-13285)	Bromomethane	28 (53-141)	-	77 (≤22)	J (all detects) UJ (all non-detects)	A
AVB141-0100-13285MS/MSD (AVB141-0100-13285)	Chloromethane 2-Hexanone	163 (47-148) 124 (52-122)	- -	- -	J (all detects) J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652470-LCS/D (AVB141-0102-1000 652470-1-BLK)	Vinyl chloride	-	122 (43-120)	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples AVB116-0201-19205 and AVB116-0200-19205 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB116-0201-19205	AVB116-0200-19205			
Chloroform	1.59	0.50U	104 (≤20)	J (all detects) UJ (all non-detects)	A
1,1-Dichloroethane	2.66	1.82	38 (≤20)	J (all detects)	A
1,1-Dichloroethene	4.40	3.17	32 (≤20)	J (all detects)	A
cis-1,2-Dichloroethene	2.91	1.98	38 (≤20)	J (all detects)	A
Tetrachloroethene	1.17	0.670	54 (≤20)	J (all detects)	A
Trichloroethene	12.5	8.55	38 (≤20)	J (all detects)	A
Toluene	2.00U	65.6	188 (≤20)	J (all detects) UJ (all non-detects)	A

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481201

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481201	AVB141-0100-13285	Bromomethane	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (M2,R5)
481201	AVB141-0100-13285	Chloromethane 2-Hexanone	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (M1)
481201	AVB141-0102-1000	Vinyl chloride	J (all detects)	P	Laboratory control samples (%R) (L1)
481201	AVB116-0201-19205 AVB116-0200-19205	Chloroform Toluene	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (R8)
481201	AVB116-0201-19205 AVB116-0200-19205	1,1-Dichloroethane 1,1-Dichloroethene cis-1,2-Dichloroethene Tetrachloroethene Trichloroethene	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A	Field duplicates (RPD) (R8)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB141-0102-1000** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-001 Date Collected: 03.14.14 07.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 22.35		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 22.35		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 22.35		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 22.35		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 22.35		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 22.35		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 22.35		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 22.35		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 22.35		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 22.35		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 22.35		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 22.35		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 22.35		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 22.35		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 22.35		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 22.35		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 22.35		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 22.35		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 22.35		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 22.35		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 22.35		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 22.35		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 22.35		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 22.35		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 22.35		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 22.35		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 22.35		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 22.35		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 22.35		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 22.35		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 22.35		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 22.35		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 22.35		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 22.35		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 22.35		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 22.35		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 22.35		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 22.35		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 22.35		1

Final 1.000

0291/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB141-0102-1000** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-001 Date Collected: 03.14.14 07.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 22.35		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 22.35		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 22.35		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 22.35		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 22.35		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 22.35		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 22.35		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 22.35		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 22.35		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 22.35		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 22.35		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 22.35		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 22.35		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 22.35		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 22.35		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 22.35		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 22.35		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 22.35		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 22.35		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 22.35		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 22.35		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 22.35		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 22.35		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 22.35		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 22.35		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 22.35		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 22.35		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 22.35	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 22.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	110	%	69-133	03.14.14 22.35	
1,2-Dichloroethane-D4	17060-07-0	112	%	66-139	03.14.14 22.35	
Toluene-D8	2037-26-5	107	%	70-130	03.14.14 22.35	
4-Bromofluorobenzene	460-00-4	99	%	70-135	03.14.14 22.35	

04/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB141-0100-13285** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-002 Date Collected: 03.14.14 07.10

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.15.14 19.43		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.15.14 19.43		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.15.14 19.43		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.15.14 19.43		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.15.14 19.43		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.15.14 19.43		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (M2)	ug/L	03.15.14 19.43	M2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.15.14 19.43		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.15.14 19.43		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.15.14 19.43		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.15.14 19.43		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.15.14 19.43		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.15.14 19.43		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.15.14 19.43		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.15.14 19.43		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.15.14 19.43		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.15.14 19.43		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.15.14 19.43	M1	1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.15.14 19.43		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.15.14 19.43		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.15.14 19.43		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.15.14 19.43		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.15.14 19.43		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.15.14 19.43		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.15.14 19.43		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.15.14 19.43		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.15.14 19.43		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.15.14 19.43		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.15.14 19.43		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.15.14 19.43		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.15.14 19.43		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.15.14 19.43		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.15.14 19.43		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.15.14 19.43		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.15.14 19.43		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.15.14 19.43		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.15.14 19.43		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.15.14 19.43		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.15.14 19.43		1

02/22/14

Final 1.000

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB141-0100-13285** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-002 Date Collected: 03.14.14 07.10

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.15.14 19.43		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.15.14 19.43		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.15.14 19.43		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.15.14 19.43	M1	1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.15.14 19.43		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.15.14 19.43		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.15.14 19.43		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.15.14 19.43		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.15.14 19.43		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.15.14 19.43		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.15.14 19.43		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.15.14 19.43		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.15.14 19.43		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.15.14 19.43		1
Toluene	108-88-3	**2.85**	2.00	ug/L	03.15.14 19.43		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.15.14 19.43		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.15.14 19.43		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.15.14 19.43		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.15.14 19.43		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.15.14 19.43		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.15.14 19.43		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.15.14 19.43		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.15.14 19.43		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.15.14 19.43		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.15.14 19.43		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.15.14 19.43		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.15.14 19.43		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.15.14 19.43		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.15.14 19.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	69-133	03.15.14 19.43	
1,2-Dichloroethane-D4	17060-07-0	97	%	66-139	03.15.14 19.43	
Toluene-D8	2037-26-5	104	%	70-130	03.15.14 19.43	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.15.14 19.43	

C24122/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0201-19205** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-003 Date Collected: 03.14.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.15.14 20.08		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.15.14 20.08		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.15.14 20.08		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.15.14 20.08		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.15.14 20.08		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.15.14 20.08		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.15.14 20.08		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.15.14 20.08		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.15.14 20.08		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.15.14 20.08		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.15.14 20.08		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.15.14 20.08		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.15.14 20.08		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.15.14 20.08		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.15.14 20.08		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.15.14 20.08		1
Chloroform	67-66-3	**1.59** J	0.500 (R8)	ug/L	03.15.14 20.08		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.15.14 20.08		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.15.14 20.08		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.15.14 20.08		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.15.14 20.08		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.15.14 20.08		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.15.14 20.08		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.15.14 20.08		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.15.14 20.08		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.15.14 20.08		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.15.14 20.08		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.15.14 20.08		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.15.14 20.08		1
1,1-Dichloroethane	75-34-3	**2.66** J	0.500 (R8)	ug/L	03.15.14 20.08		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.15.14 20.08		1
1,1-Dichloroethene	75-35-4	**4.40** J	0.500 (R8)	ug/L	03.15.14 20.08		1
cis-1,2-Dichloroethene	156-59-2	**2.91** J	0.500 (R8)	ug/L	03.15.14 20.08		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.15.14 20.08		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.15.14 20.08		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.15.14 20.08		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.15.14 20.08		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.15.14 20.08		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.15.14 20.08		1

Final 1.000

04/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0201-19205** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-003 Date Collected: 03.14.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.15.14 20.08		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.15.14 20.08		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.15.14 20.08		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.15.14 20.08		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.15.14 20.08		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.15.14 20.08		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.15.14 20.08		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.15.14 20.08		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.15.14 20.08		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.15.14 20.08		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.15.14 20.08		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.15.14 20.08		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.15.14 20.08		1
Tetrachloroethylene	127-18-4	**1.17** J	0.500 (R8)	ug/L	03.15.14 20.08		1
Toluene	108-88-3	<2.00 UJ	2.00 (R8)	ug/L	03.15.14 20.08		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.15.14 20.08		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.15.14 20.08		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.15.14 20.08		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.15.14 20.08		1
Trichloroethene	79-01-6	**12.5** J	0.500 (R8)	ug/L	03.15.14 20.08		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.15.14 20.08		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.15.14 20.08		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.15.14 20.08		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.15.14 20.08		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.15.14 20.08		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.15.14 20.08		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.15.14 20.08		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.15.14 20.08		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.15.14 20.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	69-133	03.15.14 20.08	
1,2-Dichloroethane-D4	17060-07-0	100	%	66-139	03.15.14 20.08	
Toluene-D8	2037-26-5	103	%	70-130	03.15.14 20.08	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.15.14 20.08	

CR 4/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0200-19205** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-004 Date Collected: 03.14.14 09.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.15.14 20.34		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.15.14 20.34		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.15.14 20.34		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.15.14 20.34		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.15.14 20.34		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.15.14 20.34		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.15.14 20.34		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.15.14 20.34		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.15.14 20.34		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.15.14 20.34		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.15.14 20.34		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.15.14 20.34		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.15.14 20.34		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.15.14 20.34		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.15.14 20.34		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.15.14 20.34		1
Chloroform	67-66-3	<0.500 U5	0.500 (RB)	ug/L	03:15.14 20.34		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.15.14 20.34		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.15.14 20.34		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.15.14 20.34		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.15.14 20.34		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.15.14 20.34		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.15.14 20.34		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.15.14 20.34		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.15.14 20.34		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.15.14 20.34		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.15.14 20.34		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.15.14 20.34		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.15.14 20.34		1
1,1-Dichloroethane	75-34-3	**1.82** J	0.500 (RB)	ug/L	03.15.14 20.34		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.15.14 20.34		1
1,1-Dichloroethene	75-35-4	**3.17** J	0.500 (RB)	ug/L	03.15.14 20.34		1
cis-1,2-Dichloroethene	156-59-2	**1.98** J	0.500 (RB)	ug/L	03.15.14 20.34		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.15.14 20.34		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.15.14 20.34		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.15.14 20.34		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.15.14 20.34		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.15.14 20.34		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.15.14 20.34		1

G4/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0200-19205** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-004 Date Collected: 03.14.14 09.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result		RL		Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500		0.500		ug/L	03.15.14 20.34		1
Ethylbenzene	100-41-4	<2.00		2.00		ug/L	03.15.14 20.34		1
Hexachlorobutadiene	87-68-3	<5.00		5.00		ug/L	03.15.14 20.34		1
2-Hexanone	591-78-6	<5.00		5.00		ug/L	03.15.14 20.34		1
isopropylbenzene	98-82-8	<2.50		2.50		ug/L	03.15.14 20.34		1
Methylene Chloride	75-09-2	<3.00		3.00		ug/L	03.15.14 20.34		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00		2.00		ug/L	03.15.14 20.34		1
4-Methyl-2-Pentanone	108-10-1	<5.00		5.00		ug/L	03.15.14 20.34		1
Naphthalene	91-20-3	<5.00		5.00		ug/L	03.15.14 20.34		1
n-Propylbenzene	103-65-1	<2.00		2.00		ug/L	03.15.14 20.34		1
Styrene	100-42-5	<1.00		1.00		ug/L	03.15.14 20.34		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500		0.500		ug/L	03.15.14 20.34		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500		0.500		ug/L	03.15.14 20.34		1
Tetrachloroethylene	127-18-4	**0.670**	J	0.500	(R8)	ug/L	03.15.14 20.34		1
Toluene	108-88-3	**65.6**	J	2.00	(R8)	ug/L	03.15.14 20.34		1
1,2,3-Trichlorobenzene	87-61-6	<5.00		5.00		ug/L	03.15.14 20.34		1
1,2,4-Trichlorobenzene	120-82-1	<5.00		5.00		ug/L	03.15.14 20.34		1
1,1,1-Trichloroethane	71-55-6	<0.500		0.500		ug/L	03.15.14 20.34		1
1,1,2-Trichloroethane	79-00-5	<0.500		0.500		ug/L	03.15.14 20.34		1
Trichloroethene	79-01-6	**8.55**	J	0.500	(R8)	ug/L	03.15.14 20.34		1
Trichlorofluoromethane	75-69-4	<2.00		2.00		ug/L	03.15.14 20.34		1
1,2,3-Trichloropropane	96-18-4	<1.00		1.00		ug/L	03.15.14 20.34		1
1,2,4-Trimethylbenzene	95-63-6	<2.00		2.00		ug/L	03.15.14 20.34		1
1,3,5-Trimethylbenzene	108-67-8	<1.50		1.50		ug/L	03.15.14 20.34		1
o-Xylene	95-47-6	<1.00		1.00		ug/L	03.15.14 20.34		1
m,p-Xylenes	179601-23-1	<2.00		2.00		ug/L	03.15.14 20.34		1
Vinyl Acetate	108-05-4	<5.00		5.00		ug/L	03.15.14 20.34		1
Vinyl Chloride	75-01-4	<0.500		0.500		ug/L	03.15.14 20.34		1
Total Xylenes	1330-20-7	<1.00		1.00		ug/L	03.15.14 20.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	69-133	03.15.14 20.34	
1,2-Dichloroethane-D4	17060-07-0	99	%	66-139	03.15.14 20.34	
Toluene-D8	2037-26-5	104	%	70-130	03.15.14 20.34	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.15.14 20.34	

04/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0200-15280** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-005 Date Collected: 03.14.14 11.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.15.14 21.00		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.15.14 21.00		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.15.14 21.00		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.15.14 21.00		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.15.14 21.00		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.15.14 21.00		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.15.14 21.00		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.15.14 21.00		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.15.14 21.00		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.15.14 21.00		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.15.14 21.00		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.15.14 21.00		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.15.14 21.00		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.15.14 21.00		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.15.14 21.00		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.15.14 21.00		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.15.14 21.00		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.15.14 21.00		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.15.14 21.00		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.15.14 21.00		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.15.14 21.00		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.15.14 21.00		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.15.14 21.00		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.15.14 21.00		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.15.14 21.00		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.15.14 21.00		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.15.14 21.00		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.15.14 21.00		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.15.14 21.00		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.15.14 21.00		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.15.14 21.00		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.15.14 21.00		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.15.14 21.00		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.15.14 21.00		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.15.14 21.00		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.15.14 21.00		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.15.14 21.00		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.15.14 21.00		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.15.14 21.00		1

024/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0200-15280** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-005 Date Collected: 03.14.14 11.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.15.14 21.00		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.15.14 21.00		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.15.14 21.00		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.15.14 21.00		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.15.14 21.00		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.15.14 21.00		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.15.14 21.00		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.15.14 21.00		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.15.14 21.00		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.15.14 21.00		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.15.14 21.00		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.15.14 21.00		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.15.14 21.00		1
Tetrachloroethylene	127-18-4	**0.880**	0.500	ug/L	03.15.14 21.00		1
Toluene	108-88-3	**4.88**	2.00	ug/L	03.15.14 21.00		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.15.14 21.00		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.15.14 21.00		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.15.14 21.00		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.15.14 21.00		1
Trichloroethene	79-01-6	**3.25**	0.500	ug/L	03.15.14 21.00		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.15.14 21.00		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.15.14 21.00		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.15.14 21.00		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.15.14 21.00		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.15.14 21.00		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.15.14 21.00		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.15.14 21.00		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.15.14 21.00		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.15.14 21.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	69-133	03.15.14 21.00	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.15.14 21.00	
Toluene-D8	2037-26-5	106	%	70-130	03.15.14 21.00	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.15.14 21.00	

04/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0104-1000** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-006 Date Collected: 03.14.14 11.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.15.14 21.26		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.15.14 21.26		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.15.14 21.26		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.15.14 21.26		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.15.14 21.26		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.15.14 21.26		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.15.14 21.26		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.15.14 21.26		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.15.14 21.26		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.15.14 21.26		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.15.14 21.26		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.15.14 21.26		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.15.14 21.26		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.15.14 21.26		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.15.14 21.26		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.15.14 21.26		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.15.14 21.26		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.15.14 21.26		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.15.14 21.26		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.15.14 21.26		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.15.14 21.26		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.15.14 21.26		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.15.14 21.26		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.15.14 21.26		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.15.14 21.26		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.15.14 21.26		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.15.14 21.26		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.15.14 21.26		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.15.14 21.26		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.15.14 21.26		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.15.14 21.26		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.15.14 21.26		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.15.14 21.26		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.15.14 21.26		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.15.14 21.26		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.15.14 21.26		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.15.14 21.26		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.15.14 21.26		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.15.14 21.26		1

0241/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0104-1000** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-006 Date Collected: 03.14.14 11.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.15.14 21.26		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.15.14 21.26		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.15.14 21.26		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.15.14 21.26		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.15.14 21.26		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.15.14 21.26		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.15.14 21.26		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.15.14 21.26		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.15.14 21.26		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.15.14 21.26		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.15.14 21.26		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.15.14 21.26		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.15.14 21.26		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.15.14 21.26		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.15.14 21.26		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.15.14 21.26		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.15.14 21.26		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.15.14 21.26		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.15.14 21.26		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.15.14 21.26		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.15.14 21.26		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.15.14 21.26		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.15.14 21.26		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.15.14 21.26		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.15.14 21.26		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.15.14 21.26		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.15.14 21.26		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.15.14 21.26		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.15.14 21.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.15.14 21.26	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.15.14 21.26	
Toluene-D8	2037-26-5	104	%	70-130	03.15.14 21.26	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.15.14 21.26	

Final 1.000

CBY 12/14

LDC #: 31346E1a (6)
SDG #: 481201
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/18/14
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	Δ	Sampling dates: 3/14/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	Δ	
VI.	Surrogate spikes	Δ	
VII.	Matrix spike/Matrix spike duplicates	SW	480824-006 MS/D
VIII.	Laboratory control samples	SW	LCS/P
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	Δ	
XVI.	Field duplicates	SW	D = 3, 4
XVII.	Field blanks	ND	TB = 1 EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	AVB141-0102-1000 TB (water)	11	652470-1-BLK	21		31	
2	AVB141-0100-13285	12	652474-1-BLK	22		32	
3	AVB116-0201-19205 D	13		23		33	
4	AVB116-0200-19205 D	14		24		34	
5	AVB132-0200-15280	15		25		35	
6	AVB132-0104-1000 EB	16		26		36	
7	AVB141-0100-13285MS	17		27		37	
8	AVB141-0100-13285MSD	18		28		38	
9		19		29		39	
10		20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

.LDC #: 31646E1a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer: 02

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	7+8	B	28 (53-141)	( )	77 (22)	2	J/UJ/A (M2, R5)
		A	163 (47-148)	( )	( )	↓	J/A dit (M1)
		Z	124 (52-122)	( )	( )	↓	↓ (M1)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 31646E1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: CR

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652470-LCS/D	C	( )	122 (43-120)	( )	1,	J/P det (L1)
			( )	( )	( )	652470-1-BLK	
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		

LDC: 31646e1a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT

2nd Reviewer: [illegible]

Method: GC/MS VOA (EPA SW 846 Method 8260B)

(R8)

Analyte	Concentration (µg/L)		RPD (≤ 20%)	Qualifiers (Parents Only)
	3	4		
K	1.59	0.50U	104	J/UJ/A
I	2.66	1.82	38	J/A det
H	4.40	3.17	32	J/A det
QQQ	2.91	1.98	38	J/A det
AA	1.17	0.670	54	J/A det
S	12.5	8.55	38	J/A det
CC	2.00U	65.6	188	J/UJ/A

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 14, 2014
LDC Report Date:	April 22, 2014
Matrix:	Water
Parameters:	Polychlorinated Biphenyls
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481201

Sample Identification

AVB116-0200-19205

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC Instrument Performance Check

Instrument performance was not required by the method.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not reviewed in this SDG.

XI. GPC Calibration

GPC cleanup was not reviewed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Polychlorinated Biphenyls - Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

West Van Buren Area
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

West Van Buren Area
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0200-19205**
Lab Sample Id: 481201-004

Matrix: Water
Date Collected: 03.14.14 09.40

Date Received:03.14.14 12.15

Analytical Method: PCBs by SW 8082
Tech: PJB
Analyst: KKO
Seq Number: 936886

Date Prep: 03.19.14 16.57

Prep Method: SW3510C
% Moisture:

SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
PCB-1016	12674-11-2	<0.500	0.500	ug/L	03.22.14 10.34		1
PCB-1221	11104-28-2	<0.500	0.500	ug/L	03.22.14 10.34		1
PCB-1232	11141-16-5	<0.500	0.500	ug/L	03.22.14 10.34		1
PCB-1242	53469-21-9	<0.500	0.500	ug/L	03.22.14 10.34		1
PCB-1248	12672-29-6	<0.500	0.500	ug/L	03.22.14 10.34		1
PCB-1254	11097-69-1	<0.500	0.500	ug/L	03.22.14 10.34		1
PCB-1260	11096-82-5	<0.500	0.500	ug/L	03.22.14 10.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Decachlorobiphenyl	2051-24-3	66	%	45-162	03.22.14 10.34	
Tetrachloro-m-xylene	877-09-8	60	%	50-125	03.22.14 10.34	

03/22/14

Final 1.000

LDC #: 31346E3b

SDG #: 481201

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/18/14

Page: 1 of 1

Reviewer:

2nd Reviewer:

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/14/14
II.	GC Instrument Performance Check	NA	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	N	
XIII.	Compound quantitation/RL/LOQ/LODs	N	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

water

1	AVB116-0200-19205	11	652661-1-BLK	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 14, 2014
LDC Report Date:	April 21, 2014
Matrix:	Water
Parameters:	Chromium
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481201

Sample Identification

AVB141-0100-13285
AVB116-0200-19205
AVB132-0200-15280
AVB141-0100-13285F
AVB116-0200-19205F
AVB132-0200-15280F

Sample IDs appended with "F" were analyzed for dissolved chromium.

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Chromium.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Level III.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No chromium was found in the preparation blanks.

No field blanks were identified in this SDG.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for Level III.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

IX. Sample Result Verification

Raw data was not reviewed for this SDG.

X. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Chromium - Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Laboratory Blank Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Field Blank Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB141-0100-13285** Matrix: Water Date Received:03.14.14 12.15
Lab Sample Id: 481201-002 Date Collected: 03.14.14 07.10

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0157**	0.0100	mg/L	03.20.14 17.23		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.26.14 08.10
Seq Number: 937136 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0114**	0.0100	mg/L	03.26.14 19.05		1

024/21/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0200-19205** Matrix: Water Date Received:03.14.14 12.15
Lab Sample Id: 481201-004 Date Collected: 03.14.14 09.40

Analytical Method: Chromium Hexavalent by SM 3500 Cr-D
Tech: RYR % Moisture:
Analyst: TNL Date Prep: 03.14.14 13.15
Seq Number: 936304

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium, Hexavalent	18540-29-9	<0.00500	0.00500	mg/L	03.14.14 13.26		1

QR

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0103**	0.0100	mg/L	03.20.14 17.29		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.26.14 08.10
Seq Number: 937136 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.26.14 19.23		1

CR 4/21/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0200-15280** Matrix: Water Date Received:03.14.14 12.15
Lab Sample Id: 481201-005 Date Collected: 03.14.14 11.40

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0122**	0.0100	mg/L	03.20.14 17.35		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.26.14 08.10
Seq Number: 937136 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.26.14 19.28		1

Final 1.000 04/21/14

LDC #: 6 31346E4

SDG #: 481201

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/17/14

Page: 1 of 1

Reviewer:

2nd Reviewer:

METHOD: Chromium (EPA SW846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/14/14
II.	Calibration	N	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Matrix Spike Analysis	~~N~~ A	CS MS/D (481073)
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS/D
~~VIII.~~	~~Internal Standard (ICP-MS)~~	N	
IX.	ICP Serial Dilution	N	
X.	Sample Result Verification	N	
XI.	Overall Assessment of Data	A	
XII.	Field Duplicates	N	
XIII.	Field Blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB141-0100-13285	11		21		11	
2	AVB116-0200-19205	12		22		12	
3	AVB132-0200-15280	13		23		13	
4	AVB141-0100-13285F	14		24		14	
5	AVB116-0200-19205F	15		25		15	
6	AVB132-0200-15280F	16		26		16	
7		17		27		17	
8		18		28		18	
9		19		29		19	
10		20		30		20	

Notes: Samples appended with "F" were analyzed for dissolved chromium

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 14, 2014
LDC Report Date:	April 21, 2014
Matrix:	Water
Parameters:	Hexavalent Chromium
Validation Level:	Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481201

Sample Identification

AVB116-0200-19205

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Standard Method 3500 CR-D for Hexavalent Chromium.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration data were not reviewed for Level III.

III. Calibration verification

Calibration verification data were not reviewed for Level III.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No hexavalent chromium was found in the preparation blanks.

No field blanks were identified in this SDG.

V. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Duplicates

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Sample Result Verification

Raw data were not reviewed for this SDG.

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Hexavalent Chromium - Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

West Van Buren Area
Hexavalent Chromium - Laboratory Blank Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

West Van Buren Area
Hexavalent Chromium - Field Blank Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0200-19205** Matrix: Water Date Received:03.14.14 12.15
Lab Sample Id: 481201-004 Date Collected: 03.14.14 09.40

Analytical Method: Chromium Hexavalent by SM 3500 Cr-D
Tech: RYR % Moisture:
Analyst: TNL Date Prep: 03.14.14 13.15
Seq Number: 936304

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium, Hexavalent	18540-29-9	<0.00500	0.00500	mg/L	03.14.14 13.26		1

QR

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.20.14 11.10
Seq Number: 936677 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0103**	0.0100	mg/L	03.20.14 17.29		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.26.14 08.10
Seq Number: 937136 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.26.14 19.23		1

04/21/14

LDC #: 31346E6 (6)

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/17/14

SDG #: 481201

Page: 1 of 1

Laboratory: Xenco Laboratories

Reviewer:

2nd Reviewer:

METHOD: (Analyte) Hexavalent Chromium (SM3500Cr-D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/14/14
II	Initial calibration	N	
III.	Calibration verification	N	
IV	Blanks	A	
V	Matrix Spike/Matrix Spike Duplicates	N	CS
VI.	Duplicates	N	
VII.	Laboratory control samples	A	LCS/D
VIII.	Sample result verification	N	
IX.	Overall assessment of data	A	
X.	Field duplicates	N	
XI.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	AVB116-0200-19205	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 17, 2014

LDC Report Date: April 22, 2014

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 481318

Sample Identification

AVB129-0202-1000
AVB129-0200-17310
AVB129-0100-19152
AVB60-0100-33473
AVB98-0100-23287
AVB81-0100-25295
AVB81-0200-24118
AVB91-0200-23291
AVB96-0200-23332
AVB96-0100-22121
AVB129-0200-17310MS
AVB129-0200-17310MSD

Introduction

This data review covers 12 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB129-0202-1000 was identified as a trip blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652608-LCS/D (All samples in SDG 481318)	Bromomethane	51 (58-138)	52 (58-138)	-	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481318

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481318	AVB129-0202-1000 AVB129-0200-17310 AVB129-0100-19152 AVB60-0100-33473 AVB98-0100-23287 AVB81-0100-25295 AVB81-0200-24118 AVB91-0200-23291 AVB96-0200-23332 AVB96-0100-22121	Bromomethane	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L2)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481318

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481318

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB129-0202-1000**
Lab Sample Id: 481318-001

Matrix: Water
Date Collected: 03.17.14 08.00

Date Received:03.17.14 15.40

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 13.31		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 13.31		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 13.31		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 13.31		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 13.31		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.18.14 13.31	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 13.31		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 13.31		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 13.31		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 13.31		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 13.31		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 13.31		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 13.31		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 13.31		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 13.31		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 13.31		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 13.31		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 13.31		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 13.31		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 13.31		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 13.31		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 13.31		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 13.31		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 13.31		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 13.31		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 13.31		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 13.31		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 13.31		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 13.31		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 13.31		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 13.31		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 13.31		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 13.31		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 13.31		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 13.31		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 13.31		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 13.31		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 13.31		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 13.31		1

Final 1.000

04/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB129-0202-1000** Matrix: Water Date Received:03.17.14 15.40
Lab Sample Id: 481318-001 Date Collected: 03.17.14 08.00

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.18.14 09.54
Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 13.31		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 13.31		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 13.31		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 13.31		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 13.31		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 13.31		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 13.31		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 13.31		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 13.31		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 13.31		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 13.31		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 13.31		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 13.31		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 13.31		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 13.31		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 13.31		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 13.31		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 13.31		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 13.31		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 13.31		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 13.31		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 13.31		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 13.31		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 13.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	69-133	03.18.14 13.31	
1,2-Dichloroethane-D4	17060-07-0	106	%	66-139	03.18.14 13.31	
Toluene-D8	2037-26-5	104	%	70-130	03.18.14 13.31	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.18.14 13.31	

Final 1.000

04/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB129-0200-17310**
Lab Sample Id: 481318-002

Matrix: Water
Date Collected: 03.17.14 10.54

Date Received:03.17.14 15.40

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 13.57		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 13.57		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 13.57		1
Bromodichloromethane	75-27-4	**2.35**	0.500	ug/L	03.18.14 13.57		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 13.57		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.18.14 13.57	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 13.57		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 13.57		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 13.57		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 13.57		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 13.57		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 13.57		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 13.57		1
Chloroform	67-66-3	**2.87**	0.500	ug/L	03.18.14 13.57		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 13.57		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 13.57		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 13.57		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 13.57		1
Dibromochloromethane	124-48-1	**1.46**	0.500	ug/L	03.18.14 13.57		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 13.57		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 13.57		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 13.57		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 13.57		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 13.57		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 13.57		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 13.57		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 13.57		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 13.57		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 13.57		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 13.57		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 13.57		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 13.57		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 13.57		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 13.57		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 13.57		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 13.57		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 13.57		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 13.57		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 13.57		1

Final 1.000

C24/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB129-0200-17310** Matrix: Water Date Received:03.17.14 15.40

Lab Sample Id: 481318-002 Date Collected: 03.17.14 10.54

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 13.57		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 13.57		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 13.57		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 13.57		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 13.57		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 13.57		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 13.57		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 13.57		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 13.57		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 13.57		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 13.57		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 13.57		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 13.57		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 13.57		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 13.57		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 13.57		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 13.57		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 13.57		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 13.57		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 13.57		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 13.57		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 13.57		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 13.57		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 13.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	69-133	03.18.14 13.57	
1,2-Dichloroethane-D4	17060-07-0	105	%	66-139	03.18.14 13.57	
Toluene-D8	2037-26-5	104	%	70-130	03.18.14 13.57	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.18.14 13.57	

CR 4/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB129-0100-19152** Matrix: Water Date Received:03.17.14 15.40

Lab Sample Id: 481318-003 Date Collected: 03.17.14 11.10

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 14.23		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 14.23		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 14.23		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 14.23		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 14.23		1
Bromomethane	74-83-9	<5.00 U5	5.00 LL2	ug/L	03.18.14 14.23	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 14.23		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 14.23		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 14.23		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 14.23		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 14.23		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 14.23		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 14.23		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 14.23		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 14.23		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 14.23		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 14.23		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 14.23		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 14.23		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 14.23		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 14.23		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 14.23		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 14.23		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 14.23		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 14.23		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 14.23		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 14.23		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 14.23		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 14.23		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 14.23		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 14.23		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 14.23		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 14.23		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 14.23		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 14.23		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 14.23		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 14.23		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 14.23		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 14.23		1

04/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB129-0100-19152** Matrix: Water Date Received:03.17.14 15.40

Lab Sample Id: 481318-003 Date Collected: 03.17.14 11.10

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 14.23		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 14.23		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 14.23		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 14.23		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 14.23		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 14.23		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 14.23		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 14.23		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 14.23		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 14.23		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 14.23		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 14.23		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 14.23		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 14.23		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 14.23		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 14.23		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 14.23		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 14.23		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 14.23		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 14.23		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 14.23		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 14.23		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 14.23		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 14.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.18.14 14.23	
1,2-Dichloroethane-D4	17060-07-0	107	%	66-139	03.18.14 14.23	
Toluene-D8	2037-26-5	103	%	70-130	03.18.14 14.23	
4-Bromofluorobenzene	460-00-4	92	%	70-135	03.18.14 14.23	

CR 4/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB60-0100-33473**
Lab Sample Id: 481318-004

Matrix: Water
Date Collected: 03.17.14 11.45

Date Received:03.17.14 15.40

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 14.49		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 14.49		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 14.49		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 14.49		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 14.49		1
Bromomethane	74-83-9	<5.00 U5	5.00 (L2)	ug/L	03.18.14 14.49	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 14.49		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 14.49		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 14.49		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 14.49		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 14.49		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 14.49		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 14.49		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 14.49		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 14.49		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 14.49		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 14.49		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 14.49		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 14.49		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 14.49		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 14.49		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 14.49		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 14.49		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 14.49		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 14.49		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 14.49		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 14.49		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 14.49		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 14.49		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 14.49		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 14.49		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 14.49		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 14.49		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 14.49		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 14.49		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 14.49		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 14.49		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 14.49		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 14.49		1

CL 4/22/14

Final 1.000

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB60-0100-33473** Matrix: Water Date Received:03.17.14 15.40
Lab Sample Id: 481318-004 Date Collected: 03.17.14 11.45

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.18.14 09.54
Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 14.49		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 14.49		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 14.49		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 14.49		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 14.49		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 14.49		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 14.49		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 14.49		1
Tetrachloroethylene	127-18-4	**0.700**	0.500	ug/L	03.18.14 14.49		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 14.49		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 14.49		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 14.49		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 14.49		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 14.49		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 14.49		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 14.49		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 14.49		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 14.49		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 14.49		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 14.49		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 14.49		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 14.49		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 14.49		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 14.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	69-133	03.18.14 14.49	
1,2-Dichloroethane-D4	17060-07-0	106	%	66-139	03.18.14 14.49	
Toluene-D8	2037-26-5	104	%	70-130	03.18.14 14.49	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.18.14 14.49	

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Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB98-0100-23287** Matrix: Water Date Received:03.17.14 15.40
Lab Sample Id: 481318-005 Date Collected: 03.17.14 12.30

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.18.14 09.54
Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 15.15		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 15.15		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 15.15		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 15.15		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 15.15		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.18.14 15.15	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 15.15		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 15.15		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 15.15		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 15.15		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 15.15		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 15.15		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 15.15		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 15.15		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 15.15		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 15.15		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 15.15		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 15.15		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 15.15		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 15.15		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 15.15		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 15.15		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 15.15		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 15.15		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 15.15		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 15.15		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 15.15		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 15.15		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 15.15		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 15.15		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 15.15		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 15.15		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 15.15		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 15.15		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 15.15		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 15.15		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 15.15		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 15.15		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 15.15		1

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Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB98-0100-23287** Matrix: Water Date Received:03.17.14 15.40
Lab Sample Id: 481318-005 Date Collected: 03.17.14 12.30

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.18.14 09.54
Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 15.15		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 15.15		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 15.15		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 15.15		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 15.15		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 15.15		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 15.15		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 15.15		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 15.15		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 15.15		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 15.15		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 15.15		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 15.15		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 15.15		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 15.15		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 15.15		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 15.15		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 15.15		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 15.15		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 15.15		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 15.15		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 15.15		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 15.15		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 15.15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	69-133	03.18.14 15.15	
1,2-Dichloroethane-D4	17060-07-0	105	%	66-139	03.18.14 15.15	
Toluene-D8	2037-26-5	102	%	70-130	03.18.14 15.15	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.18.14 15.15	

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Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB81-0100-25295** Matrix: Water Date Received:03.17.14 15.40

Lab Sample Id: 481318-006 Date Collected: 03.17.14 13.05

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 15.41		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 15.41		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 15.41		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 15.41		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 15.41		1
Bromomethane	74-83-9	<5.00 U	5.00 (L2)	ug/L	03.18.14 15.41	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 15.41		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 15.41		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 15.41		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 15.41		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 15.41		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 15.41		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 15.41		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 15.41		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 15.41		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 15.41		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 15.41		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 15.41		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 15.41		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 15.41		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 15.41		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 15.41		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 15.41		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 15.41		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 15.41		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 15.41		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 15.41		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 15.41		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 15.41		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 15.41		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 15.41		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 15.41		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 15.41		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 15.41		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 15.41		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 15.41		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 15.41		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 15.41		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 15.41		1

03/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB81-0100-25295** Matrix: Water Date Received:03.17.14 15.40
Lab Sample Id: 481318-006 Date Collected: 03.17.14 13.05

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.18.14 09.54
Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 15.41		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 15.41		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 15.41		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 15.41		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 15.41		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 15.41		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 15.41		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 15.41		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 15.41		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 15.41		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 15.41		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 15.41		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 15.41		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 15.41		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 15.41		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 15.41		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 15.41		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 15.41		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 15.41		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 15.41		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 15.41		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 15.41		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 15.41		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 15.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.18.14 15.41	
1,2-Dichloroethane-D4	17060-07-0	107	%	66-139	03.18.14 15.41	
Toluene-D8	2037-26-5	106	%	70-130	03.18.14 15.41	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.18.14 15.41	

CR 4/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB81-0200-24118**
Lab Sample Id: 481318-007

Matrix: Water
Date Collected: 03.17.14 13.30

Date Received:03.17.14 15.40

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 16.06		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 16.06		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 16.06		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 16.06		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 16.06		1
Bromomethane	74-83-9	<5.00	5.00 (L2)	ug/L	03.18.14 16.06	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 16.06		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 16.06		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 16.06		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 16.06		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 16.06		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 16.06		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 16.06		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 16.06		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 16.06		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 16.06		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 16.06		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 16.06		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 16.06		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 16.06		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 16.06		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 16.06		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 16.06		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 16.06		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 16.06		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 16.06		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 16.06		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 16.06		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 16.06		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 16.06		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 16.06		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 16.06		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 16.06		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 16.06		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 16.06		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 16.06		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 16.06		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 16.06		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 16.06		1

Final 1.000

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Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB81-0200-24118**
Lab Sample Id: 481318-007

Matrix: Water
Date Collected: 03.17.14 13.30

Date Received:03.17.14 15.40

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 16.06		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 16.06		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 16.06		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 16.06		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 16.06		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 16.06		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 16.06		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 16.06		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 16.06		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 16.06		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 16.06		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 16.06		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 16.06		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 16.06		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 16.06		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 16.06		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 16.06		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 16.06		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 16.06		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 16.06		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 16.06		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 16.06		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 16.06		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 16.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	69-133	03.18.14 16.06	
1,2-Dichloroethane-D4	17060-07-0	109	%	66-139	03.18.14 16.06	
Toluene-D8	2037-26-5	103	%	70-130	03.18.14 16.06	
4-Bromofluorobenzene	460-00-4	87	%	70-135	03.18.14 16.06	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0200-23291**
Lab Sample Id: 481318-008

Matrix: Water
Date Collected: 03.17.14 14.00

Date Received:03.17.14 15.40

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 16.32		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 16.32		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 16.32		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 16.32		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 16.32		1
Bromomethane	74-83-9	<5.00	5.00 (L2)	ug/L	03.18.14 16.32	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 16.32		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 16.32		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 16.32		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 16.32		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 16.32		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 16.32		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 16.32		1
Chloroform	67-66-3	**0.580**	0.500	ug/L	03.18.14 16.32		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 16.32		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 16.32		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 16.32		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 16.32		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 16.32		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 16.32		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 16.32		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 16.32		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 16.32		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 16.32		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 16.32		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 16.32		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 16.32		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 16.32		1
1,1-Dichloroethene	75-35-4	**0.840**	0.500	ug/L	03.18.14 16.32		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 16.32		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 16.32		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 16.32		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 16.32		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 16.32		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 16.32		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 16.32		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 16.32		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 16.32		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 16.32		1

Final 1.000

02/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0200-23291**
Lab Sample Id: 481318-008

Matrix: Water
Date Collected: 03.17.14 14.00

Date Received:03.17.14 15.40

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 16.32		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 16.32		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 16.32		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 16.32		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 16.32		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 16.32		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 16.32		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 16.32		1
Tetrachloroethylene	127-18-4	**3.66**	0.500	ug/L	03.18.14 16.32		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 16.32		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 16.32		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 16.32		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 16.32		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 16.32		1
Trichloroethene	79-01-6	**1.54**	0.500	ug/L	03.18.14 16.32		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 16.32		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 16.32		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 16.32		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 16.32		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 16.32		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 16.32		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 16.32		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 16.32		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 16.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	69-133	03.18.14 16.32	
1,2-Dichloroethane-D4	17060-07-0	108	%	66-139	03.18.14 16.32	
Toluene-D8	2037-26-5	107	%	70-130	03.18.14 16.32	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.18.14 16.32	

Final 1.000

04/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB96-0200-23332**
Lab Sample Id: 481318-009

Matrix: Water
Date Collected: 03.17.14 14.35

Date Received:03.17.14 15.40

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 16.58		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 16.58		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 16.58		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 16.58		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 16.58		1
Bromomethane	74-83-9	<5.00 U	5.00 (L2)	ug/L	03.18.14 16.58	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 16.58		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 16.58		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 16.58		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 16.58		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 16.58		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 16.58		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 16.58		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 16.58		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 16.58		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 16.58		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 16.58		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 16.58		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 16.58		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 16.58		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 16.58		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 16.58		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 16.58		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 16.58		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 16.58		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 16.58		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 16.58		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 16.58		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 16.58		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 16.58		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 16.58		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 16.58		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 16.58		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 16.58		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 16.58		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 16.58		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 16.58		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 16.58		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 16.58		1

Final 1.000

CL4/24/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB96-0200-23332**
Lab Sample Id: 481318-009

Matrix: Water
Date Collected: 03.17.14 14.35

Date Received:03.17.14 15.40

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 16.58		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 16.58		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 16.58		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 16.58		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 16.58		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 16.58		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 16.58		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 16.58		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 16.58		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 16.58		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 16.58		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 16.58		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 16.58		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 16.58		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 16.58		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 16.58		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 16.58		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 16.58		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 16.58		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 16.58		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 16.58		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 16.58		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 16.58		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 16.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.18.14 16.58	
1,2-Dichloroethane-D4	17060-07-0	109	%	66-139	03.18.14 16.58	
Toluene-D8	2037-26-5	105	%	70-130	03.18.14 16.58	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.18.14 16.58	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB96-0100-22121**
Lab Sample Id: 481318-010

Matrix: Water
Date Collected: 03.17.14 14.50

Date Received:03.17.14 15.40

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 17.23		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 17.23		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 17.23		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 17.23		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 17.23		1
Bromomethane	74-83-9	<5.00	5.00 (L2)	ug/L	03.18.14 17.23	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 17.23		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 17.23		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 17.23		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 17.23		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 17.23		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 17.23		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 17.23		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 17.23		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 17.23		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 17.23		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 17.23		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 17.23		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 17.23		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 17.23		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 17.23		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 17.23		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 17.23		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 17.23		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 17.23		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 17.23		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 17.23		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 17.23		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 17.23		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 17.23		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 17.23		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 17.23		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 17.23		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 17.23		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 17.23		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 17.23		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 17.23		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 17.23		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 17.23		1

Final 1.000

0247274

Certificate of Analytical Results 481318

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB96-0100-22121** Matrix: Water Date Received:03.17.14 15.40

Lab Sample Id: 481318-010 Date Collected: 03.17.14 14.50

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 17.23		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 17.23		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 17.23		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 17.23		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 17.23		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 17.23		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 17.23		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 17.23		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 17.23		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 17.23		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 17.23		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 17.23		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 17.23		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 17.23		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 17.23		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 17.23		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 17.23		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 17.23		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 17.23		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 17.23		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 17.23		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 17.23		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 17.23		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 17.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	69-133	03.18.14 17.23	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.18.14 17.23	
Toluene-D8	2037-26-5	104	%	70-130	03.18.14 17.23	
4-Bromofluorobenzene	460-00-4	97	%	70-135	03.18.14 17.23	

03/24/14

LDC #: 31346F1a

SDG #: 481318

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/18/14

Page: 1 of 1

Reviewer: PT

2nd Reviewer: OL

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/17/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	481318-002 MS/D
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 1

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

Water

1	AVB129-0202-1000 TB	11	AVB129-0200-17310MS	21	652608-1-BLK	31	
2	AVB129-0200-17310	12	AVB129-0200-17310MSD	22		32	
3	AVB129-0100-19152	13		23		33	
4	AVB60-0100-33473	14		24		34	
5	AVB98-0100-23287	15		25		35	
6	AVB81-0100-25295	16		26		36	
7	AVB81-0200-24118	17		27		37	
8	AVB91-0200-23291	18		28		38	
9	AVB96-0200-23332	19		29		39	
10	AVB96-0100-22121	20		30		40	

LDC #: 31646Fla

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652608-LCS/D	B	51 (58-138)	52 (58-138)	( )	All	J/UJ/P (L2)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 18, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 481385

Sample Identification

AVB38-0402-1000
AVB38-0400-06115
AVB122-0100-21152
AVB122-0200-21245
AVB108-0200-20225
AVB121-0100-21132
AVB120-0300-10325
AVB120-0200-21245
AVB120-0100-20140
AVB107-0100-23118
AVB128-0100-18279
AVB127-0100-18140
AVB134-0100-13140
AVB134-0200-14230
AVB120-0200-21245MS
AVB120-0200-21245MSD

Introduction

This data review covers 16 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB38-0402-1000 was identified as a trip blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) were not within QC limits. Since the sample concentration was greater than the spiked concentration, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652608-LCS/D (AVB38-0402-1000 AVB38-0400-06115 AVB122-0100-21152 AVB122-0200-21245 AVB108-0200-20225 AVB121-0100-21132 AVB120-0300-10325 652608-1-BLK)	Bromomethane	51 (58-138)	52 (58-138)	-	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481385

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481385	AVB38-0402-1000 AVB38-0400-06115 AVB122-0100-21152 AVB122-0200-21245 AVB108-0200-20225 AVB121-0100-21132 AVB120-0300-10325	Bromomethane	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L2)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481385

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481385

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB38-0402-1000**
Lab Sample Id: 481385-001

Matrix: Water
Date Collected: 03.18.14 08.00

Date Received:03.18.14 15.25

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 18.40		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 18.40		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 18.40		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 18.40		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 18.40		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.18.14 18.40	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 18.40		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 18.40		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 18.40		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 18.40		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 18.40		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 18.40		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 18.40		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 18.40		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 18.40		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 18.40		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 18.40		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 18.40		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 18.40		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 18.40		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 18.40		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 18.40		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 18.40		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 18.40		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 18.40		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 18.40		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 18.40		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 18.40		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 18.40		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 18.40		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 18.40		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 18.40		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 18.40		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 18.40		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 18.40		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 18.40		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 18.40		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 18.40		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 18.40		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB38-0402-1000**
Lab Sample Id: 481385-001

Matrix: Water
Date Collected: 03.18.14 08.00

Date Received:03.18.14 15.25

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 18.40		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 18.40		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 18.40		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 18.40		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 18.40		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 18.40		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 18.40		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 18.40		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 18.40		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 18.40		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 18.40		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 18.40		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 18.40		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 18.40		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 18.40		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 18.40		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 18.40		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 18.40		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 18.40		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 18.40		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 18.40		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 18.40		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 18.40		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 18.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	69-133	03.18.14 18.40	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	03.18.14 18.40	
Toluene-D8	2037-26-5	102	%	70-130	03.18.14 18.40	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.18.14 18.40	

Final 1.000

CLH122M

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB38-0400-06115** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-002 Date Collected: 03.18.14 09.25

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 19.06		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 19.06		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 19.06		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 19.06		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 19.06		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.18.14 19.06	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 19.06		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 19.06		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 19.06		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 19.06		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 19.06		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 19.06		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 19.06		1
Chloroform	67-66-3	**4.82**	0.500	ug/L	03.18.14 19.06		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 19.06		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 19.06		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 19.06		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 19.06		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 19.06		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 19.06		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 19.06		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 19.06		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 19.06		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 19.06		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 19.06		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 19.06		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 19.06		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 19.06		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 19.06		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 19.06		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 19.06		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 19.06		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 19.06		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 19.06		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 19.06		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 19.06		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 19.06		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 19.06		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 19.06		1

CM 12/24/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB38-0400-06115** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-002 Date Collected: 03.18.14 09.25

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 19.06		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 19.06		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 19.06		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 19.06		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 19.06		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 19.06		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 19.06		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 19.06		1
Tetrachloroethylene	127-18-4	**1.94**	0.500	ug/L	03.18.14 19.06		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 19.06		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 19.06		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 19.06		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 19.06		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 19.06		1
Trichloroethene	79-01-6	**0.670**	0.500	ug/L	03.18.14 19.06		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 19.06		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 19.06		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 19.06		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 19.06		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 19.06		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 19.06		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 19.06		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 19.06		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 19.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.18.14 19.06	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.18.14 19.06	
Toluene-D8	2037-26-5	103	%	70-130	03.18.14 19.06	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.18.14 19.06	

CLH/2464

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0100-21152**
Lab Sample Id: 481385-003

Matrix: Water
Date Collected: 03.18.14 10.20

Date Received:03.18.14 15.25

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 19.31		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 19.31		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 19.31		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 19.31		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 19.31		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.18.14 19.31	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 19.31		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 19.31		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 19.31		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 19.31		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 19.31		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 19.31		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 19.31		1
Chloroform	67-66-3	**7.43**	0.500	ug/L	03.18.14 19.31		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 19.31		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 19.31		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 19.31		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 19.31		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 19.31		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 19.31		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 19.31		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 19.31		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 19.31		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 19.31		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 19.31		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 19.31		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 19.31		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 19.31		1
1,1-Dichloroethene	75-35-4	**2.23**	0.500	ug/L	03.18.14 19.31		1
cis-1,2-Dichloroethene	156-59-2	**0.760**	0.500	ug/L	03.18.14 19.31		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 19.31		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 19.31		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 19.31		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 19.31		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 19.31		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 19.31		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 19.31		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 19.31		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 19.31		1

Final 1.000

CL 4/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0100-21152** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-003 Date Collected: 03.18.14 10.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 19.31		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 19.31		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 19.31		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 19.31		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 19.31		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 19.31		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 19.31		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 19.31		1
Tetrachloroethylene	127-18-4	**15.1**	0.500	ug/L	03.18.14 19.31		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 19.31		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 19.31		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 19.31		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 19.31		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 19.31		1
Trichloroethene	79-01-6	**10.7**	0.500	ug/L	03.18.14 19.31		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 19.31		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 19.31		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 19.31		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 19.31		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 19.31		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 19.31		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 19.31		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 19.31		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 19.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.18.14 19.31	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.18.14 19.31	
Toluene-D8	2037-26-5	104	%	70-130	03.18.14 19.31	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.18.14 19.31	

CL 4/23/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0200-21245**
Lab Sample Id: 481385-004

Matrix: Water
Date Collected: 03.18.14 10.35

Date Received:03.18.14 15.25

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936519

Date Prep: 03.18.14 09.54

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 19.56		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 19.56		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 19.56		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 19.56		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 19.56		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.18.14 19.56	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 19.56		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 19.56		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 19.56		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 19.56		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 19.56		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 19.56		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 19.56		1
Chloroform	67-66-3	**3.65**	0.500	ug/L	03.18.14 19.56		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 19.56		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 19.56		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 19.56		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 19.56		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 19.56		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 19.56		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 19.56		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 19.56		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 19.56		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 19.56		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 19.56		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 19.56		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 19.56		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 19.56		1
1,1-Dichloroethene	75-35-4	**3.84**	0.500	ug/L	03.18.14 19.56		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 19.56		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 19.56		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 19.56		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 19.56		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 19.56		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 19.56		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 19.56		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 19.56		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 19.56		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 19.56		1

Final 1.000

03/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0200-21245** Matrix: Water Date Received:03.18.14 15.25
Lab Sample Id: 481385-004 Date Collected: 03.18.14 10.35

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.18.14 09.54
Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 19.56		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 19.56		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 19.56		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 19.56		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 19.56		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 19.56		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 19.56		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 19.56		1
Tetrachloroethylene	127-18-4	**9.71**	0.500	ug/L	03.18.14 19.56		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 19.56		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 19.56		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 19.56		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 19.56		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 19.56		1
Trichloroethene	79-01-6	**10.3**	0.500	ug/L	03.18.14 19.56		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 19.56		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 19.56		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 19.56		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 19.56		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 19.56		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 19.56		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 19.56		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 19.56		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 19.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.18.14 19.56	
1,2-Dichloroethane-D4	17060-07-0	108	%	66-139	03.18.14 19.56	
Toluene-D8	2037-26-5	104	%	70-130	03.18.14 19.56	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.18.14 19.56	

04/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB108-0200-20225** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-005 Date Collected: 03.18.14 11.05

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 20.22		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 20.22		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 20.22		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 20.22		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 20.22		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.18.14 20.22	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 20.22		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 20.22		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 20.22		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 20.22		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 20.22		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 20.22		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 20.22		1
Chloroform	67-66-3	**9.21**	0.500	ug/L	03.18.14 20.22		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 20.22		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 20.22		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 20.22		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 20.22		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 20.22		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 20.22		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 20.22		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 20.22		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 20.22		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 20.22		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 20.22		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 20.22		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 20.22		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 20.22		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 20.22		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 20.22		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 20.22		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 20.22		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 20.22		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 20.22		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 20.22		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 20.22		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 20.22		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 20.22		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 20.22		1

02412414

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB108-0200-20225** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-005 Date Collected: 03.18.14 11.05

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 20.22		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 20.22		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 20.22		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 20.22		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 20.22		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 20.22		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 20.22		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 20.22		1
Tetrachloroethylene	127-18-4	**6.10**	0.500	ug/L	03.18.14 20.22		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 20.22		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 20.22		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 20.22		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 20.22		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 20.22		1
Trichloroethene	79-01-6	**2.52**	0.500	ug/L	03.18.14 20.22		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 20.22		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 20.22		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 20.22		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 20.22		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 20.22		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 20.22		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 20.22		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 20.22		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 20.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.18.14 20.22	
1,2-Dichloroethane-D4	17060-07-0	109	%	66-139	03.18.14 20.22	
Toluene-D8	2037-26-5	103	%	70-130	03.18.14 20.22	
4-Bromofluorobenzene	460-00-4	92	%	70-135	03.18.14 20.22	

02412214

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB121-0100-21132** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-006 Date Collected: 03.18.14 11.35

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 20.48		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 20.48		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 20.48		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 20.48		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 20.48		1
Bromomethane	74-83-9	<5.00 U	5.00 (L2)	ug/L	03.18.14 20.48	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 20.48		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 20.48		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 20.48		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 20.48		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 20.48		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 20.48		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 20.48		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 20.48		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 20.48		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 20.48		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 20.48		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 20.48		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 20.48		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 20.48		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 20.48		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 20.48		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 20.48		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 20.48		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 20.48		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 20.48		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 20.48		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 20.48		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 20.48		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 20.48		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 20.48		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 20.48		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 20.48		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 20.48		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 20.48		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 20.48		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 20.48		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 20.48		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 20.48		1

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB121-0100-21132** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-006 Date Collected: 03.18.14 11.35

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 20.48		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 20.48		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 20.48		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 20.48		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 20.48		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 20.48		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 20.48		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 20.48		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 20.48		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 20.48		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 20.48		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 20.48		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 20.48		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 20.48		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 20.48		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 20.48		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 20.48		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 20.48		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 20.48		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 20.48		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 20.48		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 20.48		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 20.48		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 20.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.18.14 20.48	
1,2-Dichloroethane-D4	17060-07-0	111	%	66-139	03.18.14 20.48	
Toluene-D8	2037-26-5	105	%	70-130	03.18.14 20.48	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.18.14 20.48	

CZ 4/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB120-0300-10325** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-007 Date Collected: 03.18.14 12.15

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.18.14 09.54

Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.18.14 21.14		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.18.14 21.14		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.18.14 21.14		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.18.14 21.14		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.18.14 21.14		1
Bromomethane	74-83-9	<5.00 U	5.00 (L2)	ug/L	03.18.14 21.14	L2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.18.14 21.14		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.18.14 21.14		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.18.14 21.14		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.18.14 21.14		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.18.14 21.14		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.18.14 21.14		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.18.14 21.14		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.18.14 21.14		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.18.14 21.14		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.18.14 21.14		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.18.14 21.14		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.18.14 21.14		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.18.14 21.14		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.18.14 21.14		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.18.14 21.14		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.18.14 21.14		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.18.14 21.14		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.18.14 21.14		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.18.14 21.14		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.18.14 21.14		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.18.14 21.14		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.18.14 21.14		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.18.14 21.14		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.18.14 21.14		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.18.14 21.14		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.18.14 21.14		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.18.14 21.14		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.18.14 21.14		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.18.14 21.14		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.18.14 21.14		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.18.14 21.14		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.18.14 21.14		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.18.14 21.14		1

03/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB120-0300-10325** Matrix: Water Date Received:03.18.14 15.25
Lab Sample Id: 481385-007 Date Collected: 03.18.14 12.15

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.18.14 09.54
Seq Number: 936519

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.18.14 21.14		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.18.14 21.14		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.18.14 21.14		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.18.14 21.14		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.18.14 21.14		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.18.14 21.14		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.18.14 21.14		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.18.14 21.14		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.18.14 21.14		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.18.14 21.14		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.18.14 21.14		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.18.14 21.14		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.18.14 21.14		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.18.14 21.14		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.18.14 21.14		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.18.14 21.14		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.18.14 21.14		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.18.14 21.14		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.18.14 21.14		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.18.14 21.14		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.18.14 21.14		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.18.14 21.14		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.18.14 21.14		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.18.14 21.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	69-133	03.18.14 21.14	
1,2-Dichloroethane-D4	17060-07-0	108	%	66-139	03.18.14 21.14	
Toluene-D8	2037-26-5	103	%	70-130	03.18.14 21.14	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.18.14 21.14	

C2 4/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB120-0200-21245** Matrix: Water Date Received:03.18.14 15.25
Lab Sample Id: 481385-008 Date Collected: 03.18.14 12.30

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.19.14 09.56
Seq Number: 936609

Dilution Analysis:
Seq#: 936609 Date Analyzed: 03/19/14 21:23 Date Prep: 03/19/14 09:56

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.19.14 12.22		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.19.14 12.22		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.19.14 12.22		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.19.14 12.22		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.19.14 12.22		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.19.14 12.22		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.19.14 12.22		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.19.14 12.22		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.19.14 12.22		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.19.14 12.22		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.19.14 12.22		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.19.14 12.22		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.19.14 12.22		1
Chloroform	67-66-3	**1.63**	0.500	ug/L	03.19.14 12.22		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.19.14 12.22		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.19.14 12.22		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.19.14 12.22		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.19.14 12.22		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.19.14 12.22		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.19.14 12.22		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.19.14 12.22		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.19.14 12.22		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.19.14 12.22		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.19.14 12.22		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.19.14 12.22		1
Dichlorodifluoromethane	75-71-8	**3.20**	2.00	ug/L	03.19.14 12.22		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.19.14 12.22		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.19.14 12.22		1
1,1-Dichloroethene	75-35-4	**1.39**	0.500	ug/L	03.19.14 12.22		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.19.14 12.22		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.19.14 12.22		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.19.14 12.22		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.19.14 12.22		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.19.14 12.22		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.19.14 12.22		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.19.14 12.22		1

C24/22/14

Final 1.000

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB120-0200-21245**
Lab Sample Id: 481385-008

Matrix: Water
Date Collected: 03.18.14 12.30

Date Received:03.18.14 15.25

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936609

Date Prep: 03.19.14 09.56

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.19.14 12.22		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.19.14 12.22		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.19.14 12.22		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.19.14 12.22		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.19.14 12.22		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.19.14 12.22		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.19.14 12.22		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.19.14 12.22		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.19.14 12.22		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.19.14 12.22		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.19.14 12.22		1
Tetrachloroethylene	127-18-4	**31.4**	0.500	ug/L	03.19.14 12.22		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.19.14 12.22		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.19.14 12.22		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.19.14 12.22		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.19.14 12.22		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.19.14 12.22		1
Trichloroethene	79-01-6	**129**	5.00	ug/L	03.19.14 21.23	D2M3	10
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.19.14 12.22		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.19.14 12.22		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.19.14 12.22		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.19.14 12.22		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.19.14 12.22		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.19.14 12.22		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.19.14 12.22		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.19.14 12.22		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.19.14 12.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	69-133	03.19.14 12.22	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.19.14 12.22	
Toluene-D8	2037-26-5	104	%	70-130	03.19.14 12.22	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.19.14 12.22	

Final 1.000

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB120-0100-20140** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-009 Date Collected: 03.18.14 12.40

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.19.14 09.56

Seq Number: 936609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.19.14 12.48		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.19.14 12.48		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.19.14 12.48		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.19.14 12.48		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.19.14 12.48		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.19.14 12.48		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.19.14 12.48		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.19.14 12.48		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.19.14 12.48		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.19.14 12.48		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.19.14 12.48		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.19.14 12.48		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.19.14 12.48		1
Chloroform	67-66-3	**3.48**	0.500	ug/L	03.19.14 12.48		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.19.14 12.48		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.19.14 12.48		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.19.14 12.48		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.19.14 12.48		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.19.14 12.48		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.19.14 12.48		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.19.14 12.48		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.19.14 12.48		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.19.14 12.48		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.19.14 12.48		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.19.14 12.48		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.19.14 12.48		1
1,1-Dichloroethane	75-34-3	**2.82**	0.500	ug/L	03.19.14 12.48		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.19.14 12.48		1
1,1-Dichloroethene	75-35-4	**3.75**	0.500	ug/L	03.19.14 12.48		1
cis-1,2-Dichloroethene	156-59-2	**11.4**	0.500	ug/L	03.19.14 12.48		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.19.14 12.48		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.19.14 12.48		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.19.14 12.48		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.19.14 12.48		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.19.14 12.48		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.19.14 12.48		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.19.14 12.48		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.19.14 12.48		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.19.14 12.48		1

02/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB120-0100-20140** Matrix: Water Date Received:03.18.14 15.25
Lab Sample Id: 481385-009 Date Collected: 03.18.14 12.40

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.19.14 09.56
Seq Number: 936609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.19.14 12.48		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.19.14 12.48		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.19.14 12.48		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.19.14 12.48		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.19.14 12.48		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.19.14 12.48		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.19.14 12.48		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.19.14 12.48		1
Tetrachloroethylene	127-18-4	**8.30**	0.500	ug/L	03.19.14 12.48		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.19.14 12.48		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.19.14 12.48		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.19.14 12.48		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.19.14 12.48		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.19.14 12.48		1
Trichloroethene	79-01-6	**76.7**	0.500	ug/L	03.19.14 12.48		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.19.14 12.48		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.19.14 12.48		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.19.14 12.48		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.19.14 12.48		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.19.14 12.48		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.19.14 12.48		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.19.14 12.48		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.19.14 12.48		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.19.14 12.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.19.14 12.48	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.19.14 12.48	
Toluene-D8	2037-26-5	102	%	70-130	03.19.14 12.48	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.19.14 12.48	

03/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB107-0100-23118** Matrix: Water Date Received:03.18.14 15.25
Lab Sample Id: 481385-010 Date Collected: 03.18.14 13.10

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.19.14 09.56
Seq Number: 936609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.19.14 13.14		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.19.14 13.14		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.19.14 13.14		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.19.14 13.14		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.19.14 13.14		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.19.14 13.14		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.19.14 13.14		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.19.14 13.14		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.19.14 13.14		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.19.14 13.14		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.19.14 13.14		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.19.14 13.14		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.19.14 13.14		1
Chloroform	67-66-3	**3.17**	0.500	ug/L	03.19.14 13.14		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.19.14 13.14		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.19.14 13.14		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.19.14 13.14		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.19.14 13.14		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.19.14 13.14		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.19.14 13.14		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.19.14 13.14		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.19.14 13.14		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.19.14 13.14		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.19.14 13.14		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.19.14 13.14		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.19.14 13.14		1
1,1-Dichloroethane	75-34-3	**2.39**	0.500	ug/L	03.19.14 13.14		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.19.14 13.14		1
1,1-Dichloroethene	75-35-4	**3.29**	0.500	ug/L	03.19.14 13.14		1
cis-1,2-Dichloroethene	156-59-2	**4.51**	0.500	ug/L	03.19.14 13.14		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.19.14 13.14		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.19.14 13.14		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.19.14 13.14		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.19.14 13.14		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.19.14 13.14		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.19.14 13.14		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.19.14 13.14		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.19.14 13.14		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.19.14 13.14		1

Final 1.000

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Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB107-0100-23118** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-010 Date Collected: 03.18.14 13.10

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.19.14 09.56

Seq Number: 936609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.19.14 13.14		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.19.14 13.14		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.19.14 13.14		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.19.14 13.14		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.19.14 13.14		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.19.14 13.14		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.19.14 13.14		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.19.14 13.14		1
Tetrachloroethylene	127-18-4	**3.76**	0.500	ug/L	03.19.14 13.14		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.19.14 13.14		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.19.14 13.14		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.19.14 13.14		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.19.14 13.14		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.19.14 13.14		1
Trichloroethene	79-01-6	**18.8**	0.500	ug/L	03.19.14 13.14		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.19.14 13.14		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.19.14 13.14		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.19.14 13.14		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.19.14 13.14		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.19.14 13.14		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.19.14 13.14		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.19.14 13.14		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.19.14 13.14		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.19.14 13.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	69-133	03.19.14 13.14	
1,2-Dichloroethane-D4	17060-07-0	106	%	66-139	03.19.14 13.14	
Toluene-D8	2037-26-5	103	%	70-130	03.19.14 13.14	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.19.14 13.14	

024/2026

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB128-0100-18279** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-011 Date Collected: 03.18.14 13.35

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.19.14 09.56

Seq Number: 936609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.19.14 13.40		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.19.14 13.40		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.19.14 13.40		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.19.14 13.40		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.19.14 13.40		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.19.14 13.40		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.19.14 13.40		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.19.14 13.40		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.19.14 13.40		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.19.14 13.40		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.19.14 13.40		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.19.14 13.40		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.19.14 13.40		1
Chloroform	67-66-3	**1.00**	0.500	ug/L	03.19.14 13.40		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.19.14 13.40		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.19.14 13.40		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.19.14 13.40		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.19.14 13.40		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.19.14 13.40		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.19.14 13.40		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.19.14 13.40		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.19.14 13.40		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.19.14 13.40		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.19.14 13.40		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.19.14 13.40		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.19.14 13.40		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.19.14 13.40		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.19.14 13.40		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.19.14 13.40		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.19.14 13.40		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.19.14 13.40		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.19.14 13.40		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.19.14 13.40		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.19.14 13.40		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.19.14 13.40		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.19.14 13.40		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.19.14 13.40		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.19.14 13.40		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.19.14 13.40		1

Final 1.000

03/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB128-0100-18279** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-011 Date Collected: 03.18.14 13.35

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.19.14 09.56

Seq Number: 936609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.19.14 13.40		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.19.14 13.40		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.19.14 13.40		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.19.14 13.40		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.19.14 13.40		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.19.14 13.40		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.19.14 13.40		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.19.14 13.40		1
Tetrachloroethylene	127-18-4	**2.05**	0.500	ug/L	03.19.14 13.40		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.19.14 13.40		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.19.14 13.40		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.19.14 13.40		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.19.14 13.40		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.19.14 13.40		1
Trichloroethene	79-01-6	**0.830**	0.500	ug/L	03.19.14 13.40		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.19.14 13.40		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.19.14 13.40		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.19.14 13.40		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.19.14 13.40		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.19.14 13.40		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.19.14 13.40		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.19.14 13.40		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.19.14 13.40		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.19.14 13.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	69-133	03.19.14 13.40	
1,2-Dichloroethane-D4	17060-07-0	107	%	66-139	03.19.14 13.40	
Toluene-D8	2037-26-5	102	%	70-130	03.19.14 13.40	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.19.14 13.40	

04/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB127-0100-18140**
Lab Sample Id: 481385-012

Matrix: Water
Date Collected: 03.18.14 14.00

Date Received:03.18.14 15.25

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936609

Date Prep: 03.19.14 09.56

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.19.14 14.05		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.19.14 14.05		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.19.14 14.05		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.19.14 14.05		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.19.14 14.05		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.19.14 14.05		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.19.14 14.05		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.19.14 14.05		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.19.14 14.05		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.19.14 14.05		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.19.14 14.05		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.19.14 14.05		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.19.14 14.05		1
Chloroform	67-66-3	**3.00**	0.500	ug/L	03.19.14 14.05		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.19.14 14.05		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.19.14 14.05		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.19.14 14.05		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.19.14 14.05		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.19.14 14.05		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.19.14 14.05		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.19.14 14.05		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.19.14 14.05		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.19.14 14.05		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.19.14 14.05		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.19.14 14.05		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.19.14 14.05		1
1,1-Dichloroethane	75-34-3	**0.810**	0.500	ug/L	03.19.14 14.05		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.19.14 14.05		1
1,1-Dichloroethene	75-35-4	**0.850**	0.500	ug/L	03.19.14 14.05		1
cis-1,2-Dichloroethene	156-59-2	**3.31**	0.500	ug/L	03.19.14 14.05		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.19.14 14.05		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.19.14 14.05		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.19.14 14.05		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.19.14 14.05		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.19.14 14.05		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.19.14 14.05		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.19.14 14.05		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.19.14 14.05		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.19.14 14.05		1

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Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB127-0100-18140** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-012 Date Collected: 03.18.14 14.00

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.19.14 09.56

Seq Number: 936609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.19.14 14.05		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.19.14 14.05		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.19.14 14.05		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.19.14 14.05		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.19.14 14.05		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.19.14 14.05		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.19.14 14.05		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.19.14 14.05		1
Tetrachloroethylene	127-18-4	**2.56**	0.500	ug/L	03.19.14 14.05		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.19.14 14.05		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.19.14 14.05		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.19.14 14.05		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.19.14 14.05		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.19.14 14.05		1
Trichloroethene	79-01-6	**18.4**	0.500	ug/L	03.19.14 14.05		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.19.14 14.05		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.19.14 14.05		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.19.14 14.05		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.19.14 14.05		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.19.14 14.05		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.19.14 14.05		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.19.14 14.05		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.19.14 14.05		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.19.14 14.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	69-133	03.19.14 14.05	
1,2-Dichloroethane-D4	17060-07-0	106	%	66-139	03.19.14 14.05	
Toluene-D8	2037-26-5	103	%	70-130	03.19.14 14.05	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.19.14 14.05	

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Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB134-0100-13140** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-013 Date Collected: 03.18.14 14.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.19.14 09.56

Seq Number: 936609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.19.14 14.31		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.19.14 14.31		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.19.14 14.31		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.19.14 14.31		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.19.14 14.31		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.19.14 14.31		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.19.14 14.31		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.19.14 14.31		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.19.14 14.31		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.19.14 14.31		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.19.14 14.31		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.19.14 14.31		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.19.14 14.31		1
Chloroform	67-66-3	**2.24**	0.500	ug/L	03.19.14 14.31		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.19.14 14.31		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.19.14 14.31		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.19.14 14.31		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.19.14 14.31		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.19.14 14.31		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.19.14 14.31		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.19.14 14.31		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.19.14 14.31		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.19.14 14.31		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.19.14 14.31		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.19.14 14.31		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.19.14 14.31		1
1,1-Dichloroethane	75-34-3	**7.80**	0.500	ug/L	03.19.14 14.31		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.19.14 14.31		1
1,1-Dichloroethene	75-35-4	**10.9**	0.500	ug/L	03.19.14 14.31		1
cis-1,2-Dichloroethene	156-59-2	**17.6**	0.500	ug/L	03.19.14 14.31		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.19.14 14.31		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.19.14 14.31		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.19.14 14.31		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.19.14 14.31		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.19.14 14.31		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.19.14 14.31		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.19.14 14.31		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.19.14 14.31		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.19.14 14.31		1

04/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB134-0100-13140** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-013 Date Collected: 03.18.14 14.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.19.14 09.56

Seq Number: 936609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.19.14 14.31		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.19.14 14.31		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.19.14 14.31		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.19.14 14.31		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.19.14 14.31		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.19.14 14.31		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.19.14 14.31		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.19.14 14.31		1
Tetrachloroethylene	127-18-4	**4.83**	0.500	ug/L	03.19.14 14.31		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.19.14 14.31		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.19.14 14.31		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.19.14 14.31		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.19.14 14.31		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.19.14 14.31		1
Trichloroethene	79-01-6	**88.4**	0.500	ug/L	03.19.14 14.31		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.19.14 14.31		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.19.14 14.31		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.19.14 14.31		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.19.14 14.31		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.19.14 14.31		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.19.14 14.31		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.19.14 14.31		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.19.14 14.31		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.19.14 14.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.19.14 14.31	
1,2-Dichloroethane-D4	17060-07-0	107	%	66-139	03.19.14 14.31	
Toluene-D8	2037-26-5	102	%	70-130	03.19.14 14.31	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.19.14 14.31	

CL 4/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB134-0200-14230** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-014 Date Collected: 03.18.14 14.30

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.19.14 09.56

Seq Number: 936609

Dilution Analysis:

Seq#: 936609 Date Analyzed: 03/19/14 21:48 Date Prep: 03/19/14 09:56

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.19.14 14.57		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.19.14 14.57		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.19.14 14.57		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.19.14 14.57		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.19.14 14.57		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.19.14 14.57		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.19.14 14.57		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.19.14 14.57		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.19.14 14.57		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.19.14 14.57		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.19.14 14.57		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.19.14 14.57		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.19.14 14.57		1
Chloroform	67-66-3	**2.31**	0.500	ug/L	03.19.14 14.57		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.19.14 14.57		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.19.14 14.57		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.19.14 14.57		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.19.14 14.57		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.19.14 14.57		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.19.14 14.57		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.19.14 14.57		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.19.14 14.57		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.19.14 14.57		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.19.14 14.57		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.19.14 14.57		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.19.14 14.57		1
1,1-Dichloroethane	75-34-3	**9.70**	0.500	ug/L	03.19.14 14.57		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.19.14 14.57		1
1,1-Dichloroethene	75-35-4	**20.2**	0.500	ug/L	03.19.14 14.57		1
cis-1,2-Dichloroethene	156-59-2	**25.8**	0.500	ug/L	03.19.14 14.57		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.19.14 14.57		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.19.14 14.57		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.19.14 14.57		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.19.14 14.57		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.19.14 14.57		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.19.14 14.57		1

04/22/14

Certificate of Analytical Results 481385

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB134-0200-14230** Matrix: Water Date Received:03.18.14 15.25

Lab Sample Id: 481385-014 Date Collected: 03.18.14 14.30

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.19.14 09.56

Seq Number: 936609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.19.14 14.57		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.19.14 14.57		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.19.14 14.57		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.19.14 14.57		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.19.14 14.57		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.19.14 14.57		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.19.14 14.57		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.19.14 14.57		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.19.14 14.57		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.19.14 14.57		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.19.14 14.57		1
Tetrachloroethylene	127-18-4	**9.47**	0.500	ug/L	03.19.14 14.57		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.19.14 14.57		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.19.14 14.57		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.19.14 14.57		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.19.14 14.57		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.19.14 14.57		1
Trichloroethene	79-01-6	**162**	5.00	ug/L	03.19.14 21.48	D2	10
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.19.14 14.57		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.19.14 14.57		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.19.14 14.57		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.19.14 14.57		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.19.14 14.57		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.19.14 14.57		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.19.14 14.57		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.19.14 14.57		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.19.14 14.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	69-133	03.19.14 14.57	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.19.14 14.57	
Toluene-D8	2037-26-5	101	%	70-130	03.19.14 14.57	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.19.14 14.57	

Final 1.000

CL 4/22/14

LDC #: 31346G1a

SDG #: 481385

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/18/14

Page: 1 of 1

Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	Δ	Sampling dates: 3/18/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	Δ	
VI.	Surrogate spikes	Δ	
VII.	Matrix spike/Matrix spike duplicates	SW	481318-002 MS ID
VIII.	Laboratory control samples	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	Δ	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 1

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

Water

1	1	AVB38-0402-1000 TB	11	2	AVB128-0100-18279	21	652608-1-BLK	31	
2	1	AVB38-0400-06115	12	2	AVB127-0100-18140	22	652656-1-BLK	32	
3	1	AVB122-0100-21152	13	2	AVB134-0100-13140	23		33	
4	1	AVB122-0200-21245	14	2	AVB134-0200-14230	24		34	
5	1	AVB108-0200-20225	15	1	AVB120-0200-21245MS	25		35	
6	1	AVB121-0100-21132	16	1	AVB120-0200-21245MSD	26		36	
7	1	AVB120-0300-10325	17			27		37	
8	2	AVB120-0200-21245	18			28		38	
9	2	AVB120-0100-20140	19			29		39	
10	2	AVB107-0100-23118	20			30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

.LDC #: 31646G1a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer: a

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	15 + 16	S	( )	50 (70-130)	( )	8	no qual parent >
			( )	( )	( )		4X spike Amt
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 31646G1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: 02

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652608-LCSID	B	51 (58-138)	52 (58-138)	( )	1-5, 652608-1-BLK	J/UJ/P (L2)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 19, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 481550

Sample Identification

AVB84-0102-1000
AVB84-0100-XXX
AVB69-0100-27255
AVB99-0100-23109
AVB106-0300-26100
AVB106-0200-26177
AVB77-0100-26108
AVB77-0200-26140
AVB77-0300-26215
AVB83-0100-24114
AVB18-0100-37108
AVB115-0100-21127
AVB115-0101-21127
AVB68-0400-26255
AVB68-0200-26110
AVB85-0100-25112
AVB84-0100-XXXMS
AVB84-0100-XXXMSD
AVB18-0100-37108MS
AVB18-0100-37108MSD

Introduction

This data review covers 20 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB84-0102-1000 was identified as a trip blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
AVB84-0100-XXXMS/MSD (AVB84-0100-XXX)	Bromomethane	192 (53-141)	-	83 (≤22)	J (all detects)	A
AVB18-0100-37108MS/MSD (AVB18-0100-37108)	Bromomethane	160 (53-141)	-	-	J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652787-LCS/D (AVB84-0102-1000 AVB84-0100-XXX AVB69-0100-27255 AVB99-0100-23109 AVB106-0300-26100 AVB106-0200-26177 AVB77-0100-26108 AVB77-0200-26140 AVB77-0300-26215 AVB83-0100-24114 652787-1-BLK)	Bromomethane	56 (58-138)	-	-	J (all detects) UJ (all non-detects)	P
652822-LCS/D (AVB18-0100-37108 AVB115-0100-21127 AVB115-0101-21127 AVB68-0400-26255 AVB68-0200-26110 AVB85-0100-25112 652822-1-BLK)	Bromomethane	-	-	38 (≤25)	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples AVB116-0201-19205 and AVB116-0200-19205 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB115-0100-21127	AVB115-0101-21127			
1,1-Dichloroethane	3.04	3.00	1 (≤20)	-	-
1,1-Dichloroethene	4.65	4.75	2 (≤20)	-	-
cis-1,2-Dichloroethene	7.28	7.32	1 (≤20)	-	-
Tetrachloroethene	2.11	2.17	3 (≤20)	-	-
Trichloroethene	40.9	41.7	2 (≤20)	-	-
Chloroform	2.37	2.43	3 (≤20)	-	-

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481550

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481550	AVB84-0100-XXX	Bromomethane	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (M1,R5)
481550	AVB18-0100-37108	Bromomethane	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (M1)
481550	AVB84-0102-1000 AVB84-0100-XXX AVB69-0100-27255 AVB99-0100-23109 AVB106-0300-26100 AVB106-0200-26177 AVB77-0100-26108 AVB77-0200-26140 AVB77-0300-26215 AVB83-0100-24114	Bromomethane	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L2)
481550	AVB18-0100-37108 AVB115-0100-21127 AVB115-0101-21127 AVB68-0400-26255 AVB68-0200-26110 AVB85-0100-25112	Bromomethane	J (all detects) UJ (all non-detects)	P	Laboratory control samples (RPD) (R7)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481550

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481550

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB84-0102-1000**
Lab Sample Id: 481550-001

Matrix: Water
Date Collected: 03.19.14 08.00

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936801

Date Prep: 03.20.14 12.21

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.20.14 15.54		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.20.14 15.54		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.20.14 15.54		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.20.14 15.54		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.20.14 15.54		1
Bromomethane	74-83-9	<5.00 U5	5.00 (LZ)	ug/L	03.20.14 15.54		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.20.14 15.54		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.20.14 15.54		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.20.14 15.54		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.20.14 15.54		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.20.14 15.54		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.20.14 15.54		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.20.14 15.54		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.20.14 15.54		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.20.14 15.54		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.20.14 15.54		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.20.14 15.54		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.20.14 15.54		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.20.14 15.54		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.20.14 15.54		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.20.14 15.54		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.20.14 15.54		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.20.14 15.54		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.20.14 15.54		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.20.14 15.54		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.20.14 15.54		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.20.14 15.54		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.20.14 15.54		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.20.14 15.54		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.20.14 15.54		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.20.14 15.54		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.20.14 15.54		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.20.14 15.54		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.20.14 15.54		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.20.14 15.54		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.20.14 15.54		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.20.14 15.54		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.20.14 15.54		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.20.14 15.54		1

02/22/14

Final 1.000

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB84-0102-1000** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-001 Date Collected: 03.19.14 08.00

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.20.14 15.54		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.20.14 15.54		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.20.14 15.54		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.20.14 15.54		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.20.14 15.54		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.20.14 15.54		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.20.14 15.54		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.20.14 15.54		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.20.14 15.54		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.20.14 15.54		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.20.14 15.54		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.20.14 15.54		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.20.14 15.54		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.20.14 15.54		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.20.14 15.54		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.20.14 15.54		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.20.14 15.54		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.20.14 15.54		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.20.14 15.54		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.20.14 15.54		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.20.14 15.54		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.20.14 15.54		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.20.14 15.54		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.20.14 15.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	96	%	69-133	03.20.14 15.54	
1,2-Dichloroethane-D4	17060-07-0	92	%	66-139	03.20.14 15.54	
Toluene-D8	2037-26-5	100	%	70-130	03.20.14 15.54	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.20.14 15.54	

Final 1.000

024122/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB84-0100-XXX** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-002 Date Collected: 03.19.14 09.00

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.20.14 16.20		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.20.14 16.20		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.20.14 16.20		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.20.14 16.20		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.20.14 16.20		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (LZ)	ug/L	03.20.14 16.20	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.20.14 16.20		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.20.14 16.20		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.20.14 16.20		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.20.14 16.20		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.20.14 16.20		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.20.14 16.20		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.20.14 16.20		1
Chloroform	67-66-3	**0.780**	0.500	ug/L	03.20.14 16.20		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.20.14 16.20		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.20.14 16.20		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.20.14 16.20		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.20.14 16.20		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.20.14 16.20		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.20.14 16.20		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.20.14 16.20		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.20.14 16.20		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.20.14 16.20		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.20.14 16.20		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.20.14 16.20		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.20.14 16.20		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.20.14 16.20		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.20.14 16.20		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.20.14 16.20		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.20.14 16.20		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.20.14 16.20		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.20.14 16.20		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.20.14 16.20		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.20.14 16.20		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.20.14 16.20		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.20.14 16.20		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.20.14 16.20		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.20.14 16.20		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.20.14 16.20		1

Final 1.000

02/12/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB84-0100-XXX** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-002 Date Collected: 03.19.14 09.00

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.20.14 16.20		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.20.14 16.20		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.20.14 16.20		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.20.14 16.20		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.20.14 16.20		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.20.14 16.20		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.20.14 16.20		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.20.14 16.20		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.20.14 16.20		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.20.14 16.20		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.20.14 16.20		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.20.14 16.20		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.20.14 16.20		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.20.14 16.20		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.20.14 16.20		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.20.14 16.20		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.20.14 16.20		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.20.14 16.20		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.20.14 16.20		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.20.14 16.20		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.20.14 16.20		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.20.14 16.20		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.20.14 16.20		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.20.14 16.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	03.20.14 16.20	
1,2-Dichloroethane-D4	17060-07-0	91	%	66-139	03.20.14 16.20	
Toluene-D8	2037-26-5	103	%	70-130	03.20.14 16.20	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.20.14 16.20	

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB69-0100-27255** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-003 Date Collected: 03.19.14 09.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.20.14 16.45		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.20.14 16.45		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.20.14 16.45		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.20.14 16.45		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.20.14 16.45		1
Bromomethane	74-83-9	<5.00 U5	5.00 (L2)	ug/L	03.20.14 16.45	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.20.14 16.45		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.20.14 16.45		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.20.14 16.45		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.20.14 16.45		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.20.14 16.45		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.20.14 16.45		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.20.14 16.45		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.20.14 16.45		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.20.14 16.45		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.20.14 16.45		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.20.14 16.45		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.20.14 16.45		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.20.14 16.45		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.20.14 16.45		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.20.14 16.45		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.20.14 16.45		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.20.14 16.45		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.20.14 16.45		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.20.14 16.45		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.20.14 16.45		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.20.14 16.45		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.20.14 16.45		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.20.14 16.45		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.20.14 16.45		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.20.14 16.45		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.20.14 16.45		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.20.14 16.45		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.20.14 16.45		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.20.14 16.45		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.20.14 16.45		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.20.14 16.45		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.20.14 16.45		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.20.14 16.45		1

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB69-0100-27255**
Lab Sample Id: 481550-003

Matrix: Water
Date Collected: 03.19.14 09.20

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936801

Date Prep: 03.20.14 12.21

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.20.14 16.45		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.20.14 16.45		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.20.14 16.45		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.20.14 16.45		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.20.14 16.45		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.20.14 16.45		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.20.14 16.45		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.20.14 16.45		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.20.14 16.45		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.20.14 16.45		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.20.14 16.45		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.20.14 16.45		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.20.14 16.45		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.20.14 16.45		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.20.14 16.45		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.20.14 16.45		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.20.14 16.45		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.20.14 16.45		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.20.14 16.45		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.20.14 16.45		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.20.14 16.45		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.20.14 16.45		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.20.14 16.45		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.20.14 16.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	96	%	69-133	03.20.14 16.45	
1,2-Dichloroethane-D4	17060-07-0	91	%	66-139	03.20.14 16.45	
Toluene-D8	2037-26-5	100	%	70-130	03.20.14 16.45	
4-Bromofluorobenzene	460-00-4	92	%	70-135	03.20.14 16.45	

Final 1.000

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB99-0100-23109**
Lab Sample Id: 481550-004

Matrix: Water
Date Collected: 03.19.14 09.55

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936801

Date Prep: 03.20.14 12.21

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.20.14 21.26		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.20.14 21.26		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.20.14 21.26		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.20.14 21.26		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.20.14 21.26		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (LL2)	ug/L	03.20.14 21.26	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.20.14 21.26		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.20.14 21.26		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.20.14 21.26		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.20.14 21.26		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.20.14 21.26		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.20.14 21.26		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.20.14 21.26		1
Chloroform	67-66-3	**0.920**	0.500	ug/L	03.20.14 21.26		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.20.14 21.26		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.20.14 21.26		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.20.14 21.26		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.20.14 21.26		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.20.14 21.26		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.20.14 21.26		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.20.14 21.26		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.20.14 21.26		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.20.14 21.26		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.20.14 21.26		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.20.14 21.26		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.20.14 21.26		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.20.14 21.26		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.20.14 21.26		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.20.14 21.26		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.20.14 21.26		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.20.14 21.26		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.20.14 21.26		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.20.14 21.26		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.20.14 21.26		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.20.14 21.26		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.20.14 21.26		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.20.14 21.26		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.20.14 21.26		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.20.14 21.26		1

04/22/14

Final 1.000

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB99-0100-23109**
Lab Sample Id: 481550-004

Matrix: Water
Date Collected: 03.19.14 09.55

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936801

Date Prep: 03.20.14 12.21

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.20.14 21.26		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.20.14 21.26		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.20.14 21.26		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.20.14 21.26		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.20.14 21.26		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.20.14 21.26		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.20.14 21.26		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.20.14 21.26		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.20.14 21.26		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.20.14 21.26		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.20.14 21.26		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.20.14 21.26		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.20.14 21.26		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.20.14 21.26		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.20.14 21.26		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.20.14 21.26		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.20.14 21.26		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.20.14 21.26		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.20.14 21.26		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.20.14 21.26		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.20.14 21.26		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.20.14 21.26		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.20.14 21.26		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.20.14 21.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	93	%	69-133	03.20.14 21.26	
1,2-Dichloroethane-D4	17060-07-0	87	%	66-139	03.20.14 21.26	
Toluene-D8	2037-26-5	98	%	70-130	03.20.14 21.26	
4-Bromofluorobenzene	460-00-4	91	%	70-135	03.20.14 21.26	

Final 1.000

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB106-0300-26100**
Lab Sample Id: 481550-005

Matrix: Water
Date Collected: 03.19.14 10.40

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936801

Date Prep: 03.20.14 12.21

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.20.14 21.52		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.20.14 21.52		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.20.14 21.52		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.20.14 21.52		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.20.14 21.52		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.20.14 21.52	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.20.14 21.52		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.20.14 21.52		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.20.14 21.52		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.20.14 21.52		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.20.14 21.52		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.20.14 21.52		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.20.14 21.52		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.20.14 21.52		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.20.14 21.52		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.20.14 21.52		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.20.14 21.52		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.20.14 21.52		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.20.14 21.52		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.20.14 21.52		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.20.14 21.52		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.20.14 21.52		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.20.14 21.52		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.20.14 21.52		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.20.14 21.52		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.20.14 21.52		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.20.14 21.52		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.20.14 21.52		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.20.14 21.52		1
cis-1,2-Dichloroethene	156-59-2	**0.770**	0.500	ug/L	03.20.14 21.52		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.20.14 21.52		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.20.14 21.52		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.20.14 21.52		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.20.14 21.52		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.20.14 21.52		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.20.14 21.52		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.20.14 21.52		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.20.14 21.52		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.20.14 21.52		1

Final 1.000

02/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB106-0300-26100** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-005 Date Collected: 03.19.14 10.40

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.20.14 21.52		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.20.14 21.52		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.20.14 21.52		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.20.14 21.52		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.20.14 21.52		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.20.14 21.52		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.20.14 21.52		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.20.14 21.52		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.20.14 21.52		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.20.14 21.52		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.20.14 21.52		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.20.14 21.52		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.20.14 21.52		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.20.14 21.52		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.20.14 21.52		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.20.14 21.52		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.20.14 21.52		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.20.14 21.52		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.20.14 21.52		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.20.14 21.52		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.20.14 21.52		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.20.14 21.52		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.20.14 21.52		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.20.14 21.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	95	%	69-133	03.20.14 21.52	
1,2-Dichloroethane-D4	17060-07-0	91	%	66-139	03.20.14 21.52	
Toluene-D8	2037-26-5	98	%	70-130	03.20.14 21.52	
4-Bromofluorobenzene	460-00-4	92	%	70-135	03.20.14 21.52	

02/4/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB106-0200-26177** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-006 Date Collected: 03.19.14 10.30

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.20.14 22.18		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.20.14 22.18		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.20.14 22.18		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.20.14 22.18		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.20.14 22.18		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (LZ)	ug/L	03.20.14 22.18	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.20.14 22.18		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.20.14 22.18		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.20.14 22.18		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.20.14 22.18		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.20.14 22.18		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.20.14 22.18		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.20.14 22.18		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.20.14 22.18		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.20.14 22.18		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.20.14 22.18		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.20.14 22.18		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.20.14 22.18		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.20.14 22.18		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.20.14 22.18		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.20.14 22.18		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.20.14 22.18		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.20.14 22.18		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.20.14 22.18		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.20.14 22.18		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.20.14 22.18		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.20.14 22.18		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.20.14 22.18		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.20.14 22.18		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.20.14 22.18		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.20.14 22.18		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.20.14 22.18		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.20.14 22.18		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.20.14 22.18		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.20.14 22.18		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.20.14 22.18		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.20.14 22.18		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.20.14 22.18		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.20.14 22.18		1

CL 4/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB106-0200-26177**
Lab Sample Id: 481550-006

Matrix: Water
Date Collected: 03.19.14 10.30

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936801

Date Prep: 03.20.14 12.21

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.20.14 22.18		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.20.14 22.18		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.20.14 22.18		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.20.14 22.18		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.20.14 22.18		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.20.14 22.18		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.20.14 22.18		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.20.14 22.18		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.20.14 22.18		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.20.14 22.18		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.20.14 22.18		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.20.14 22.18		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.20.14 22.18		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.20.14 22.18		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.20.14 22.18		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.20.14 22.18		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.20.14 22.18		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.20.14 22.18		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.20.14 22.18		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.20.14 22.18		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.20.14 22.18		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.20.14 22.18		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.20.14 22.18		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.20.14 22.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	93	%	69-133	03.20.14 22.18	
1,2-Dichloroethane-D4	17060-07-0	89	%	66-139	03.20.14 22.18	
Toluene-D8	2037-26-5	97	%	70-130	03.20.14 22.18	
4-Bromofluorobenzene	460-00-4	92	%	70-135	03.20.14 22.18	

Final 1.000

02412211

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB77-0100-26108** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-007 Date Collected: 03.19.14 11.15

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.20.14 22.43		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.20.14 22.43		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.20.14 22.43		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.20.14 22.43		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.20.14 22.43		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.20.14 22.43	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.20.14 22.43		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.20.14 22.43		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.20.14 22.43		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.20.14 22.43		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.20.14 22.43		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.20.14 22.43		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.20.14 22.43		1
Chloroform	67-66-3	**0.520**	0.500	ug/L	03.20.14 22.43		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.20.14 22.43		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.20.14 22.43		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.20.14 22.43		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.20.14 22.43		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.20.14 22.43		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.20.14 22.43		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.20.14 22.43		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.20.14 22.43		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.20.14 22.43		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.20.14 22.43		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.20.14 22.43		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.20.14 22.43		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.20.14 22.43		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.20.14 22.43		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.20.14 22.43		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.20.14 22.43		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.20.14 22.43		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.20.14 22.43		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.20.14 22.43		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.20.14 22.43		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.20.14 22.43		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.20.14 22.43		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.20.14 22.43		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.20.14 22.43		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.20.14 22.43		1

Final 1.000

02/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB77-0100-26108** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-007 Date Collected: 03.19.14 11.15

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.20.14 22.43		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.20.14 22.43		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.20.14 22.43		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.20.14 22.43		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.20.14 22.43		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.20.14 22.43		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.20.14 22.43		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.20.14 22.43		1
Tetrachloroethylene	127-18-4	**1.90**	0.500	ug/L	03.20.14 22.43		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.20.14 22.43		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.20.14 22.43		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.20.14 22.43		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.20.14 22.43		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.20.14 22.43		1
Trichloroethene	79-01-6	**3.26**	0.500	ug/L	03.20.14 22.43		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.20.14 22.43		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.20.14 22.43		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.20.14 22.43		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.20.14 22.43		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.20.14 22.43		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.20.14 22.43		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.20.14 22.43		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.20.14 22.43		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.20.14 22.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.20.14 22.43	
1,2-Dichloroethane-D4	17060-07-0	98	%	66-139	03.20.14 22.43	
Toluene-D8	2037-26-5	100	%	70-130	03.20.14 22.43	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.20.14 22.43	

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB77-0200-26140**
Lab Sample Id: 481550-008

Matrix: Water
Date Collected: 03.19.14 11.20

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936801

Date Prep: 03.20.14 12.21

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.20.14 23.09		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.20.14 23.09		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.20.14 23.09		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.20.14 23.09		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.20.14 23.09		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.20.14 23.09	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.20.14 23.09		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.20.14 23.09		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.20.14 23.09		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.20.14 23.09		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.20.14 23.09		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.20.14 23.09		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.20.14 23.09		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.20.14 23.09		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.20.14 23.09		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.20.14 23.09		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.20.14 23.09		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.20.14 23.09		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.20.14 23.09		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.20.14 23.09		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.20.14 23.09		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.20.14 23.09		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.20.14 23.09		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.20.14 23.09		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.20.14 23.09		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.20.14 23.09		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.20.14 23.09		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.20.14 23.09		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.20.14 23.09		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.20.14 23.09		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.20.14 23.09		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.20.14 23.09		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.20.14 23.09		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.20.14 23.09		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.20.14 23.09		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.20.14 23.09		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.20.14 23.09		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.20.14 23.09		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.20.14 23.09		1

Final 1.000

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB77-0200-26140** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-008 Date Collected: 03.19.14 11.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.20.14 23.09		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.20.14 23.09		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.20.14 23.09		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.20.14 23.09		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.20.14 23.09		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.20.14 23.09		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.20.14 23.09		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.20.14 23.09		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.20.14 23.09		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.20.14 23.09		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.20.14 23.09		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.20.14 23.09		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.20.14 23.09		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.20.14 23.09		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.20.14 23.09		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.20.14 23.09		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.20.14 23.09		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.20.14 23.09		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.20.14 23.09		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.20.14 23.09		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.20.14 23.09		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.20.14 23.09		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.20.14 23.09		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.20.14 23.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	93	%	69-133	03.20.14 23.09	
1,2-Dichloroethane-D4	17060-07-0	91	%	66-139	03.20.14 23.09	
Toluene-D8	2037-26-5	98	%	70-130	03.20.14 23.09	
4-Bromofluorobenzene	460-00-4	92	%	70-135	03.20.14 23.09	

Final 1.000

CR4/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB77-0300-26215** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-009 Date Collected: 03.19.14 11.25

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.20.14 23.35		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.20.14 23.35		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.20.14 23.35		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.20.14 23.35		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.20.14 23.35		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2)	ug/L	03.20.14 23.35	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.20.14 23.35		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.20.14 23.35		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.20.14 23.35		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.20.14 23.35		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.20.14 23.35		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.20.14 23.35		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.20.14 23.35		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.20.14 23.35		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.20.14 23.35		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.20.14 23.35		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.20.14 23.35		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.20.14 23.35		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.20.14 23.35		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.20.14 23.35		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.20.14 23.35		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.20.14 23.35		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.20.14 23.35		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.20.14 23.35		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.20.14 23.35		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.20.14 23.35		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.20.14 23.35		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.20.14 23.35		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.20.14 23.35		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.20.14 23.35		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.20.14 23.35		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.20.14 23.35		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.20.14 23.35		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.20.14 23.35		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.20.14 23.35		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.20.14 23.35		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.20.14 23.35		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.20.14 23.35		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.20.14 23.35		1

Final 1.000

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Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB77-0300-26215** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-009 Date Collected: 03.19.14 11.25

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.20.14 23.35		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.20.14 23.35		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.20.14 23.35		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.20.14 23.35		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.20.14 23.35		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.20.14 23.35		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.20.14 23.35		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.20.14 23.35		1
Tetrachloroethylene	127-18-4	**0.680**	0.500	ug/L	03.20.14 23.35		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.20.14 23.35		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.20.14 23.35		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.20.14 23.35		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.20.14 23.35		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.20.14 23.35		1
Trichloroethene	79-01-6	**0.870**	0.500	ug/L	03.20.14 23.35		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.20.14 23.35		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.20.14 23.35		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.20.14 23.35		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.20.14 23.35		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.20.14 23.35		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.20.14 23.35		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.20.14 23.35		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.20.14 23.35		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.20.14 23.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	92	%	69-133	03.20.14 23.35	
1,2-Dichloroethane-D4	17060-07-0	92	%	66-139	03.20.14 23.35	
Toluene-D8	2037-26-5	98	%	70-130	03.20.14 23.35	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.20.14 23.35	

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Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB83-0100-24114**
Lab Sample Id: 481550-010

Matrix: Water
Date Collected: 03.19.14 12.00

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936801

Date Prep: 03.20.14 12.21

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 00.00		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 00.00		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 00.00		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 00.00		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 00.00		1
Bromomethane	74-83-9	<5.00 US	5.00 (LL)	ug/L	03.21.14 00.00	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 00.00		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 00.00		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 00.00		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 00.00		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 00.00		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 00.00		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 00.00		1
Chloroform	67-66-3	**0.540**	0.500	ug/L	03.21.14 00.00		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 00.00		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 00.00		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 00.00		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 00.00		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 00.00		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 00.00		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 00.00		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 00.00		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 00.00		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 00.00		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 00.00		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 00.00		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.21.14 00.00		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 00.00		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.21.14 00.00		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 00.00		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 00.00		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 00.00		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 00.00		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 00.00		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 00.00		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 00.00		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 00.00		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 00.00		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 00.00		1

Final 1.000

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Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB83-0100-24114** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-010 Date Collected: 03.19.14 12.00

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.20.14 12.21

Seq Number: 936801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 00.00		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 00.00		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 00.00		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 00.00		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 00.00		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 00.00		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 00.00		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 00.00		1
Tetrachloroethylene	127-18-4	**1.47**	0.500	ug/L	03.21.14 00.00		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 00.00		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 00.00		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 00.00		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 00.00		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 00.00		1
Trichloroethene	79-01-6	**1.43**	0.500	ug/L	03.21.14 00.00		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 00.00		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 00.00		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 00.00		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 00.00		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 00.00		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 00.00		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 00.00		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 00.00		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 00.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	03.21.14 00.00	
1,2-Dichloroethane-D4	17060-07-0	94	%	66-139	03.21.14 00.00	
Toluene-D8	2037-26-5	96	%	70-130	03.21.14 00.00	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.21.14 00.00	

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Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB18-0100-37108**
Lab Sample Id: 481550-011

Matrix: Water
Date Collected: 03.19.14 12.20

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936889

Date Prep: 03.21.14 10.17

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 14.43		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 14.43		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 14.43		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 14.43		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 14.43		1
Bromomethane	74-83-9	<5.00 CS	5.00 (R7)	ug/L	03.21.14 14.43	M1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 14.43		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 14.43		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 14.43		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 14.43		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 14.43		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 14.43		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 14.43		1
Chloroform	67-66-3	**1.34**	0.500	ug/L	03.21.14 14.43		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 14.43		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 14.43		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 14.43		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 14.43		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 14.43		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 14.43		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 14.43		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 14.43		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 14.43		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 14.43		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 14.43		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 14.43		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.21.14 14.43		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 14.43		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.21.14 14.43		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 14.43		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 14.43		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 14.43		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 14.43		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 14.43		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 14.43		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 14.43		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 14.43		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 14.43		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 14.43		1

Final 1.000

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Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB18-0100-37108** Matrix: Water Date Received:03.19.14 15.00
Lab Sample Id: 481550-011 Date Collected: 03.19.14 12.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.21.14 10.17
Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 14.43		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 14.43		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 14.43		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 14.43		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 14.43		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 14.43		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 14.43		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 14.43		1
Tetrachloroethylene	127-18-4	**1.49**	0.500	ug/L	03.21.14 14.43		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 14.43		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 14.43		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 14.43		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 14.43		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 14.43		1
Trichloroethene	79-01-6	**1.17**	0.500	ug/L	03.21.14 14.43		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 14.43		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 14.43		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 14.43		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 14.43		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 14.43		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 14.43		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 14.43		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 14.43		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 14.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	88	%	69-133	03.21.14 14.43	
1,2-Dichloroethane-D4	17060-07-0	88	%	66-139	03.21.14 14.43	
Toluene-D8	2037-26-5	95	%	70-130	03.21.14 14.43	
4-Bromofluorobenzene	460-00-4	91	%	70-135	03.21.14 14.43	

024/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB115-0100-21127** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-012 Date Collected: 03.19.14 13.00

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.21.14 10.17

Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 15.09		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 15.09		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 15.09		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 15.09		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 15.09		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (R7)	ug/L	03.21.14 15.09		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 15.09		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 15.09		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 15.09		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 15.09		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 15.09		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 15.09		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 15.09		1
Chloroform	67-66-3	**2.37**	0.500	ug/L	03.21.14 15.09		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 15.09		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 15.09		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 15.09		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 15.09		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 15.09		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 15.09		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 15.09		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 15.09		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 15.09		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 15.09		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 15.09		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 15.09		1
1,1-Dichloroethane	75-34-3	**3.04**	0.500	ug/L	03.21.14 15.09		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 15.09		1
1,1-Dichloroethene	75-35-4	**4.65**	0.500	ug/L	03.21.14 15.09		1
cis-1,2-Dichloroethene	156-59-2	**7.28**	0.500	ug/L	03.21.14 15.09		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 15.09		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 15.09		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 15.09		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 15.09		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 15.09		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 15.09		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 15.09		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 15.09		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 15.09		1

Final 1.000

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB115-0100-21127** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-012 Date Collected: 03.19.14 13.00

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.21.14 10.17

Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 15.09		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 15.09		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 15.09		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 15.09		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 15.09		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 15.09		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 15.09		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 15.09		1
Tetrachloroethylene	127-18-4	**2.11**	0.500	ug/L	03.21.14 15.09		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 15.09		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 15.09		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 15.09		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 15.09		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 15.09		1
Trichloroethene	79-01-6	**40.9**	0.500	ug/L	03.21.14 15.09		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 15.09		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 15.09		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 15.09		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 15.09		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 15.09		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 15.09		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 15.09		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 15.09		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 15.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	93	%	69-133	03.21.14 15.09	
1,2-Dichloroethane-D4	17060-07-0	93	%	66-139	03.21.14 15.09	
Toluene-D8	2037-26-5	95	%	70-130	03.21.14 15.09	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.21.14 15.09	

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB115-0101-21127**
Lab Sample Id: 481550-013

Matrix: Water
Date Collected: 03.19.14 13.05

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936889

Date Prep: 03.21.14 10.17

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 15.35		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 15.35		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 15.35		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 15.35		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 15.35		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (R7)	ug/L	03.21.14 15.35		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 15.35		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 15.35		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 15.35		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 15.35		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 15.35		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 15.35		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 15.35		1
Chloroform	67-66-3	**2.43**	0.500	ug/L	03.21.14 15.35		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 15.35		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 15.35		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 15.35		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 15.35		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 15.35		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 15.35		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 15.35		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 15.35		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 15.35		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 15.35		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 15.35		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 15.35		1
1,1-Dichloroethane	75-34-3	**3.00**	0.500	ug/L	03.21.14 15.35		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 15.35		1
1,1-Dichloroethene	75-35-4	**4.75**	0.500	ug/L	03.21.14 15.35		1
cis-1,2-Dichloroethene	156-59-2	**7.32**	0.500	ug/L	03.21.14 15.35		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 15.35		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 15.35		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 15.35		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 15.35		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 15.35		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 15.35		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 15.35		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 15.35		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 15.35		1

Final 1.000

CL 4/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB115-0101-21127** Matrix: Water Date Received:03.19.14 15.00
Lab Sample Id: 481550-013 Date Collected: 03.19.14 13.05

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.21.14 10.17
Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 15.35		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 15.35		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 15.35		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 15.35		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 15.35		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 15.35		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 15.35		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 15.35		1
Tetrachloroethylene	127-18-4	**2.17**	0.500	ug/L	03.21.14 15.35		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 15.35		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 15.35		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 15.35		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 15.35		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 15.35		1
Trichloroethene	79-01-6	**41.7**	0.500	ug/L	03.21.14 15.35		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 15.35		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 15.35		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 15.35		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 15.35		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 15.35		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 15.35		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 15.35		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 15.35		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 15.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	92	%	69-133	03.21.14 15.35	
1,2-Dichloroethane-D4	17060-07-0	93	%	66-139	03.21.14 15.35	
Toluene-D8	2037-26-5	96	%	70-130	03.21.14 15.35	
4-Bromofluorobenzene	460-00-4	91	%	70-135	03.21.14 15.35	

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB68-0400-26255** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-014 Date Collected: 03.19.14 13.15

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.21.14 10.17

Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 16.00		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 16.00		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 16.00		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 16.00		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 16.00		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (R7)	ug/L	03.21.14 16.00		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 16.00		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 16.00		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 16.00		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 16.00		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 16.00		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 16.00		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 16.00		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.21.14 16.00		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 16.00		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 16.00		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 16.00		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 16.00		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 16.00		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 16.00		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 16.00		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 16.00		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 16.00		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 16.00		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 16.00		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 16.00		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.21.14 16.00		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 16.00		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.21.14 16.00		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 16.00		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 16.00		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 16.00		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 16.00		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 16.00		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 16.00		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 16.00		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 16.00		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 16.00		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 16.00		1

Final 1.000

02402414

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB68-0400-26255** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-014 Date Collected: 03.19.14 13.15

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.21.14 10.17

Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 16.00		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 16.00		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 16.00		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 16.00		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 16.00		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 16.00		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 16.00		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 16.00		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.21.14 16.00		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 16.00		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 16.00		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 16.00		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 16.00		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 16.00		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.21.14 16.00		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 16.00		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 16.00		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 16.00		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 16.00		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 16.00		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 16.00		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 16.00		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 16.00		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 16.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	91	%	69-133	03.21.14 16.00	
1,2-Dichloroethane-D4	17060-07-0	94	%	66-139	03.21.14 16.00	
Toluene-D8	2037-26-5	95	%	70-130	03.21.14 16.00	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.21.14 16.00	

02/02/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB68-0200-26110** Matrix: Water Date Received:03.19.14 15.00

Lab Sample Id: 481550-015 Date Collected: 03.19.14 13.25

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.21.14 10.17

Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 16.26		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 16.26		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 16.26		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 16.26		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 16.26		1
Bromomethane	74-83-9	<5.00 CS	5.00 (R7)	ug/L	03.21.14 16.26		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 16.26		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 16.26		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 16.26		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 16.26		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 16.26		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 16.26		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 16.26		1
Chloroform	67-66-3	**1.29**	0.500	ug/L	03.21.14 16.26		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 16.26		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 16.26		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 16.26		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 16.26		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 16.26		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 16.26		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 16.26		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 16.26		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 16.26		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 16.26		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 16.26		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 16.26		1
1,1-Dichloroethane	75-34-3	**0.550**	0.500	ug/L	03.21.14 16.26		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 16.26		1
1,1-Dichloroethene	75-35-4	**0.840**	0.500	ug/L	03.21.14 16.26		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 16.26		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 16.26		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 16.26		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 16.26		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 16.26		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 16.26		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 16.26		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 16.26		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 16.26		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 16.26		1

Final 1.000

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB68-0200-26110**
Lab Sample Id: 481550-015

Matrix: Water
Date Collected: 03.19.14 13.25

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936889

Date Prep: 03.21.14 10.17

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 16.26		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 16.26		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 16.26		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 16.26		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 16.26		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 16.26		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 16.26		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 16.26		1
Tetrachloroethylene	127-18-4	**0.920**	0.500	ug/L	03.21.14 16.26		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 16.26		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 16.26		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 16.26		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 16.26		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 16.26		1
Trichloroethene	79-01-6	**2.36**	0.500	ug/L	03.21.14 16.26		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 16.26		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 16.26		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 16.26		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 16.26		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 16.26		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 16.26		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 16.26		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 16.26		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 16.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	91	%	69-133	03.21.14 16.26	
1,2-Dichloroethane-D4	17060-07-0	94	%	66-139	03.21.14 16.26	
Toluene-D8	2037-26-5	95	%	70-130	03.21.14 16.26	
4-Bromofluorobenzene	460-00-4	90	%	70-135	03.21.14 16.26	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB85-0100-25112**
Lab Sample Id: 481550-016

Matrix: Water
Date Collected: 03.19.14 14.15

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936889

Date Prep: 03.21.14 10.17

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 16.51		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 16.51		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 16.51		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 16.51		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 16.51		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (R7)	ug/L	03.21.14 16.51		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 16.51		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 16.51		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 16.51		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 16.51		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 16.51		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 16.51		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 16.51		1
Chloroform	67-66-3	**0.600**	0.500	ug/L	03.21.14 16.51		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 16.51		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 16.51		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 16.51		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 16.51		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 16.51		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 16.51		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 16.51		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 16.51		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 16.51		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 16.51		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 16.51		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 16.51		1
1,1-Dichloroethane	75-34-3	**1.42**	0.500	ug/L	03.21.14 16.51		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 16.51		1
1,1-Dichloroethene	75-35-4	**1.06**	0.500	ug/L	03.21.14 16.51		1
cis-1,2-Dichloroethene	156-59-2	**22.7**	0.500	ug/L	03.21.14 16.51		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 16.51		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 16.51		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 16.51		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 16.51		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 16.51		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 16.51		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 16.51		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 16.51		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 16.51		1

Final 1.000

04/22/14

Certificate of Analytical Results 481550

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB85-0100-25112**
Lab Sample Id: 481550-016

Matrix: Water
Date Collected: 03.19.14 14.15

Date Received:03.19.14 15.00

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936889

Date Prep: 03.21.14 10.17

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 16.51		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 16.51		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 16.51		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 16.51		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 16.51		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 16.51		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 16.51		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 16.51		1
Tetrachloroethylene	127-18-4	**67.1**	0.500	ug/L	03.21.14 16.51		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 16.51		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 16.51		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 16.51		1
1,1,1-Trichloroethane	71-55-6	**1.34**	0.500	ug/L	03.21.14 16.51		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 16.51		1
Trichloroethene	79-01-6	**15.1**	0.500	ug/L	03.21.14 16.51		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 16.51		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 16.51		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 16.51		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 16.51		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 16.51		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 16.51		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 16.51		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 16.51		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 16.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	95	%	69-133	03.21.14 16.51	
1,2-Dichloroethane-D4	17060-07-0	96	%	66-139	03.21.14 16.51	
Toluene-D8	2037-26-5	94	%	70-130	03.21.14 16.51	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.21.14 16.51	

Final 1.000

CR 4/22/14

LDC #: 31346H1a (6)
SDG #: 481550
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/18/14
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/19/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 12, 13
XVII.	Field blanks	ND	TB = 1

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	1	AVB84-0102-1000 TB	11	2	AVB18-0100-37108	21	652787-1-BLK	31	
2	1	AVB84-0100-XXX	12	2	AVB115-0100-21127 D	22	652822-1-BLK	32	
3	1	AVB69-0100-27255	13	2	AVB115-0101-21127 D	23		33	
4	1	AVB99-0100-23109	14	2	AVB68-0400-26255	24		34	
5	1	AVB106-0300-26100	15	2	AVB68-0200-26110	25		35	
6	1	AVB106-0200-26177	16	2	AVB85-0100-25112	26		36	
7	1	AVB77-0100-26108	17	1	AVB84-0100-XXXMS 2	27		37	
8	1	AVB77-0200-26140	18	1	AVB84-0100-XXXMSD 2	28		38	
9	1	AVB77-0300-26215	19	2	AVB18-0100-37108MS	29		39	
10	1	AVB83-0100-24114	20	2	AVB18-0100-37108MSD	30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

.LDC #: 31646H1a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: FT
2nd Reviewer: CR

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	17 + 18	B	192 (53-141)	( )	83 (22)	2	J/A det (MI, R5)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	19 + 20	B	160 (53-141)	( )	( )	11	J/A det (MI)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 31646H 1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: a

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652787-LCS/D	B	56 (58-138)	( )	( )	1→10, 652787-1-BLK	J/UJ/P (L2)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	652822-LCS/D	B	( )	( )	38 (25)	11→16, 652822-1-BLK	J/UJ/P (R7)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC: 31646H1a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT

2nd Reviewer: [illegible]

Method: GC/MS VOA (EPA SW 846 Method 8260B)

Analyte	Concentration (µg/L)		RPD (≤ 20%)	Qualifiers (Parents Only)
	12	13		
I	3.04	3.00	1	
H	4.65	4.75	2	
QQQ	7.28	7.32	1	
AA	2.11	2.17	3	
S	40.9	41.7	2	
K	2.37	2.43	3	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 20, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 481609

Sample Identification

AVB95-0202-1000
AVB95-0200-X230
AVB95-0100-23138
AVB92-0200-XXX
AVB100-0100-16138
AVB100-0101-16138
AVB119-0100-20148
AVB94-0200-23260
AVB117-0100-21149
AVB130-0100-19159
AVB132-0100-15210
AVB132-0101-15210
AVB116-0100-21134
AVB116-0101-21134
AVB124-0100-19215
AVB123-0100-19148
AVB94-0200-23260MS
AVB94-0200-23260MSD

Introduction

This data review covers 18 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB95-0202-1000 was identified as a trip blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
AVB94-0200-23260MS/MSD (AVB94-0200-23260)	Bromomethane	242 (53-141)	163 (53-141)	39 (≤22)	J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652822-LCS/D (AVB95-0202-1000 AVB95-0200-X230 AVB95-0100-23138 AVB92-0200-XXX AVB100-0100-16138 AVB100-0101-16138 AVB119-0100-20148 652822-1-BLK)	Bromomethane	-	-	38 (≤25)	J (all detects) UJ (all non-detects)	P
652962-LCS/D (AVB94-0200-23260 AVB117-0100-21149 AVB130-0100-19159 AVB132-0100-15210 AVB132-0101-15210 AVB116-0100-21134 AVB116-0101-21134 AVB124-0100-19215 AVB123-0100-19148 652962-1-BLK)	Bromomethane	141 (58-138)	-	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples AVB100-0100-16138 and AVB100-0101-16138, samples AVB132-0100-15210 and AVB132-0101-15210, and samples AVB116-0100-21134 and AVB116-0101-21134 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB100-0100-16138	AVB100-0101-16138			
Tetrachloroethene	27.2	27.1	0 (≤20)	-	-
Trichloroethene	0.850	0.940	10 (≤20)	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB132-0100-15210	AVB132-0101-15210			
Chloroform	2.06	2.11	2 (≤20)	-	-
1,2-Dichloroethane	8.27	8.24	0 (≤20)	-	-
1,1-Dichloroethene	16.6	16.5	1 (≤20)	-	-
cis-1,2-Dichloroethene	28.6	28.6	0 (≤20)	-	-
Tetrachloroethene	9.66	9.62	0 (≤20)	-	-
Trichloroethene	183	189	3 (≤20)	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB116-0100-21134	AVB116-0101-21134			
Chloroform	1.30	1.27	2 (≤20)	-	-
1,1-Dichloroethane	0.690	0.680	1 (≤20)	-	-
1,1-Dichloroethene	1.10	0.990	11 (≤20)	-	-
cis-1,2-Dichloroethene	0.740	0.720	3 (≤20)	-	-
Tetrachloroethene	1.03	1.06	3 (≤20)	-	-
Trichloroethene	4.04	4.08	1 (≤20)	-	-

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481609

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481609	AVB94-0200-23260	Bromomethane	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (M1,R5)
481609	AVB95-0202-1000 AVB95-0200-X230 AVB95-0100-23138 AVB92-0200-XXX AVB100-0100-16138 AVB100-0101-16138 AVB119-0100-20148	Bromomethane	J (all detects) UJ (all non-detects)	P	Laboratory control samples (RPD) (R7)
481609	AVB94-0200-23260 AVB117-0100-21149 AVB130-0100-19159 AVB132-0100-15210 AVB132-0101-15210 AVB116-0100-21134 AVB116-0101-21134 AVB124-0100-19215 AVB123-0100-19148	Bromomethane	J (all detects)	P	Laboratory control samples (%R) (L1)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481609

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481609

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB95-0202-1000**
Lab Sample Id: 481609-001

Matrix: Water
Date Collected: 03.20.14 08.00

Date Received:03.20.14 16.59

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936889

Date Prep: 03.21.14 10.17

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 18.34		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 18.34		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 18.34		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 18.34		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 18.34		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (R7)	ug/L	03.21.14 18.34		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 18.34		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 18.34		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 18.34		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 18.34		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 18.34		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 18.34		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 18.34		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.21.14 18.34		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 18.34		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 18.34		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 18.34		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 18.34		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 18.34		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 18.34		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 18.34		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 18.34		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 18.34		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 18.34		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 18.34		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 18.34		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.21.14 18.34		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 18.34		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.21.14 18.34		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 18.34		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 18.34		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 18.34		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 18.34		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 18.34		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 18.34		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 18.34		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 18.34		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 18.34		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 18.34		1

CRY 1/22/15

Final 1.000

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB95-0202-1000**
Lab Sample Id: 481609-001

Matrix: Water
Date Collected: 03.20.14 08.00

Date Received:03.20.14 16.59

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936889

Date Prep: 03.21.14 10.17

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 18.34		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 18.34		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 18.34		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 18.34		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 18.34		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 18.34		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 18.34		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 18.34		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.21.14 18.34		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 18.34		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 18.34		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 18.34		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 18.34		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 18.34		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.21.14 18.34		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 18.34		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 18.34		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 18.34		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 18.34		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 18.34		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 18.34		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 18.34		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 18.34		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 18.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	91	%	69-133	03.21.14 18.34	
1,2-Dichloroethane-D4	17060-07-0	98	%	66-139	03.21.14 18.34	
Toluene-D8	2037-26-5	94	%	70-130	03.21.14 18.34	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.21.14 18.34	

Final 1.000

C24122114

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB95-0200-X230**
Lab Sample Id: 481609-002

Matrix: Water
Date Collected: 03.20.14 09.10

Date Received:03.20.14 16.59

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936889

Date Prep: 03.21.14 10.17

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 19.00		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 19.00		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 19.00		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 19.00		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 19.00		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (R7)	ug/L	03.21.14 19.00		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 19.00		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 19.00		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 19.00		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 19.00		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 19.00		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 19.00		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 19.00		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.21.14 19.00		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 19.00		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 19.00		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 19.00		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 19.00		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 19.00		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 19.00		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 19.00		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 19.00		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 19.00		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 19.00		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 19.00		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 19.00		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.21.14 19.00		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 19.00		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.21.14 19.00		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 19.00		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 19.00		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 19.00		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 19.00		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 19.00		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 19.00		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 19.00		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 19.00		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 19.00		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 19.00		1

Final 1.000

02/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB95-0200-X230** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-002 Date Collected: 03.20.14 09.10

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.21.14 10.17
Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 19.00		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 19.00		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 19.00		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 19.00		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 19.00		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 19.00		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 19.00		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 19.00		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.21.14 19.00		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 19.00		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 19.00		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 19.00		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 19.00		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 19.00		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.21.14 19.00		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 19.00		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 19.00		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 19.00		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 19.00		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 19.00		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 19.00		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 19.00		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 19.00		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 19.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	92	%	69-133	03.21.14 19.00	
1,2-Dichloroethane-D4	17060-07-0	98	%	66-139	03.21.14 19.00	
Toluene-D8	2037-26-5	96	%	70-130	03.21.14 19.00	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.21.14 19.00	

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Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB95-0100-23138** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-003 Date Collected: 03.20.14 09.25

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.21.14 10.17

Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 20.17		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 20.17		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 20.17		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 20.17		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 20.17		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (R7)	ug/L	03.21.14 20.17		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 20.17		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 20.17		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 20.17		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 20.17		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 20.17		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 20.17		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 20.17		1
Chloroform	67-66-3	**2.08**	0.500	ug/L	03.21.14 20.17		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 20.17		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 20.17		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 20.17		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 20.17		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 20.17		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 20.17		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 20.17		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 20.17		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 20.17		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 20.17		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 20.17		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 20.17		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.21.14 20.17		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 20.17		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.21.14 20.17		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 20.17		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 20.17		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 20.17		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 20.17		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 20.17		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 20.17		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 20.17		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 20.17		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 20.17		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 20.17		1

Final 1.000

04/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB95-0100-23138** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-003 Date Collected: 03.20.14 09.25

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.21.14 10.17
Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 20.17		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 20.17		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 20.17		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 20.17		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 20.17		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 20.17		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 20.17		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 20.17		1
Tetrachloroethylene	127-18-4	**1.38**	0.500	ug/L	03.21.14 20.17		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 20.17		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 20.17		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 20.17		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 20.17		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 20.17		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.21.14 20.17		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 20.17		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 20.17		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 20.17		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 20.17		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 20.17		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 20.17		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 20.17		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 20.17		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 20.17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	90	%	69-133	03.21.14 20.17	
1,2-Dichloroethane-D4	17060-07-0	91	%	66-139	03.21.14 20.17	
Toluene-D8	2037-26-5	92	%	70-130	03.21.14 20.17	
4-Bromofluorobenzene	460-00-4	91	%	70-135	03.21.14 20.17	

Final 1.000

CRY 4/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB92-0200-XXX** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-004 Date Collected: 03.20.14 10.30

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.21.14 10.17
Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 20.43		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 20.43		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 20.43		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 20.43		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 20.43		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (R7)	ug/L	03.21.14 20.43		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 20.43		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 20.43		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 20.43		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 20.43		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 20.43		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 20.43		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 20.43		1
Chloroform	67-66-3	**0.510**	0.500	ug/L	03.21.14 20.43		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 20.43		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 20.43		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 20.43		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 20.43		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 20.43		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 20.43		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 20.43		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 20.43		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 20.43		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 20.43		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 20.43		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 20.43		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.21.14 20.43		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 20.43		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.21.14 20.43		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 20.43		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 20.43		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 20.43		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 20.43		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 20.43		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 20.43		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 20.43		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 20.43		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 20.43		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 20.43		1

Final 1.000

CLY 12/14/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB92-0200-XXX** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-004 Date Collected: 03.20.14 10.30

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.21.14 10.17
Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 20.43		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 20.43		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 20.43		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 20.43		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 20.43		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 20.43		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 20.43		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 20.43		1
Tetrachloroethylene	127-18-4	**1.20**	0.500	ug/L	03.21.14 20.43		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 20.43		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 20.43		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 20.43		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 20.43		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 20.43		1
Trichloroethene	79-01-6	**11.9**	0.500	ug/L	03.21.14 20.43		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 20.43		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 20.43		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 20.43		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 20.43		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 20.43		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 20.43		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 20.43		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 20.43		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 20.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	89	%	69-133	03.21.14 20.43	
1,2-Dichloroethane-D4	17060-07-0	95	%	66-139	03.21.14 20.43	
Toluene-D8	2037-26-5	92	%	70-130	03.21.14 20.43	
4-Bromofluorobenzene	460-00-4	91	%	70-135	03.21.14 20.43	

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB100-0100-16138**
Lab Sample Id: 481609-005

Matrix: Water
Date Collected: 03.20.14 10.50

Date Received:03.20.14 16.59

Analytical Method: VOC's by SW 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936889

Date Prep: 03.21.14 10.17

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 21.09		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 21.09		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 21.09		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 21.09		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 21.09		1
Bromomethane	74-83-9	<5.00 U5	5.00 (R7)	ug/L	03.21.14 21.09		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 21.09		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 21.09		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 21.09		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 21.09		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 21.09		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 21.09		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 21.09		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.21.14 21.09		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 21.09		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 21.09		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 21.09		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 21.09		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 21.09		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 21.09		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 21.09		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 21.09		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 21.09		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 21.09		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 21.09		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 21.09		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.21.14 21.09		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 21.09		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.21.14 21.09		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 21.09		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 21.09		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 21.09		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 21.09		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 21.09		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 21.09		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 21.09		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 21.09		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 21.09		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 21.09		1

Final 1.000

02/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB100-0100-16138** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-005 Date Collected: 03.20.14 10.50

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.21.14 10.17

Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 21.09		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 21.09		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 21.09		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 21.09		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 21.09		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 21.09		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 21.09		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 21.09		1
Tetrachloroethylene	127-18-4	**27.2**	0.500	ug/L	03.21.14 21.09		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 21.09		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 21.09		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 21.09		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 21.09		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 21.09		1
Trichloroethene	79-01-6	**0.850**	0.500	ug/L	03.21.14 21.09		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 21.09		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 21.09		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 21.09		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 21.09		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 21.09		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 21.09		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 21.09		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 21.09		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 21.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	87	%	69-133	03.21.14 21.09	
1,2-Dichloroethane-D4	17060-07-0	94	%	66-139	03.21.14 21.09	
Toluene-D8	2037-26-5	91	%	70-130	03.21.14 21.09	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.21.14 21.09	

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Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB100-0101-16138** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-006 Date Collected: 03.20.14 10.55

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.21.14 10.17
Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 21.34		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 21.34		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 21.34		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 21.34		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 21.34		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (R7)	ug/L	03.21.14 21.34		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 21.34		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 21.34		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 21.34		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 21.34		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 21.34		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 21.34		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 21.34		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.21.14 21.34		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 21.34		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 21.34		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 21.34		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 21.34		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 21.34		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 21.34		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 21.34		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 21.34		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 21.34		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 21.34		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 21.34		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 21.34		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.21.14 21.34		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 21.34		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.21.14 21.34		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 21.34		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 21.34		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 21.34		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 21.34		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 21.34		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 21.34		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 21.34		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 21.34		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 21.34		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 21.34		1

 Final 1.000

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Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB100-0101-16138** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-006 Date Collected: 03.20.14 10.55

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.21.14 10.17

Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 21.34		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 21.34		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 21.34		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 21.34		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 21.34		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 21.34		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 21.34		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 21.34		1
Tetrachloroethylene	127-18-4	**27.1**	0.500	ug/L	03.21.14 21.34		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 21.34		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 21.34		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 21.34		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 21.34		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 21.34		1
Trichloroethene	79-01-6	**0.940**	0.500	ug/L	03.21.14 21.34		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 21.34		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 21.34		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 21.34		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 21.34		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 21.34		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 21.34		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 21.34		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 21.34		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 21.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	89	%	69-133	03.21.14 21.34	
1,2-Dichloroethane-D4	17060-07-0	96	%	66-139	03.21.14 21.34	
Toluene-D8	2037-26-5	91	%	70-130	03.21.14 21.34	
4-Bromofluorobenzene	460-00-4	91	%	70-135	03.21.14 21.34	

Final 1.000

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Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB119-0100-20148** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-007 Date Collected: 03.20.14 11.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.21.14 10.17
Seq Number: 936889

Dilution Analysis:
Seq#: 937078 Date Analyzed: 03/25/14 19:49 Date Prep: 03/25/14 09:57

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.21.14 22.01		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.21.14 22.01		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.21.14 22.01		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.21.14 22.01		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.21.14 22.01		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (R7)	ug/L	03.21.14 22.01		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.21.14 22.01		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.21.14 22.01		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.21.14 22.01		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.21.14 22.01		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.21.14 22.01		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.21.14 22.01		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.21.14 22.01		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.21.14 22.01		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.21.14 22.01		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.21.14 22.01		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.21.14 22.01		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.21.14 22.01		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.21.14 22.01		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.21.14 22.01		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.21.14 22.01		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.21.14 22.01		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.21.14 22.01		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.21.14 22.01		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.21.14 22.01		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.21.14 22.01		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.21.14 22.01		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.21.14 22.01		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.21.14 22.01		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.21.14 22.01		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.21.14 22.01		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.21.14 22.01		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.21.14 22.01		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.21.14 22.01		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.21.14 22.01		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.21.14 22.01		1

Final 1.000

03/27/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB119-0100-20148** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-007 Date Collected: 03.20.14 11.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.21.14 10.17

Seq Number: 936889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.21.14 22.01		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.21.14 22.01		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.21.14 22.01		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.21.14 22.01		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.21.14 22.01		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.21.14 22.01		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.21.14 22.01		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.21.14 22.01		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.21.14 22.01		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.21.14 22.01		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.21.14 22.01		1
Tetrachloroethylene	127-18-4	**94.1**	5.00	ug/L	03.25.14 19.49	D2	10
Toluene	108-88-3	<2.00	2.00	ug/L	03.21.14 22.01		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.21.14 22.01		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.21.14 22.01		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.21.14 22.01		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.21.14 22.01		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.21.14 22.01		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.21.14 22.01		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.21.14 22.01		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.21.14 22.01		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.21.14 22.01		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.21.14 22.01		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.21.14 22.01		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.21.14 22.01		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.21.14 22.01		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.21.14 22.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	90	%	69-133	03.21.14 22.01	
1,2-Dichloroethane-D4	17060-07-0	98	%	66-139	03.21.14 22.01	
Toluene-D8	2037-26-5	92	%	70-130	03.21.14 22.01	
4-Bromofluorobenzene	460-00-4	91	%	70-135	03.21.14 22.01	

CL 4/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB94-0200-23260** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-008 Date Collected: 03.20.14 12.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.25.14 09.57

Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 12.04		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 12.04		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 12.04		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 12.04		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 12.04		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 12.04	N1R2	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 12.04		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 12.04		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 12.04		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 12.04		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 12.04		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 12.04		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 12.04		1
Chloroform	67-66-3	**1.48**	0.500	ug/L	03.25.14 12.04		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 12.04		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 12.04		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 12.04		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 12.04		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 12.04		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 12.04		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 12.04		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 12.04		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 12.04		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 12.04		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 12.04		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 12.04		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.25.14 12.04		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 12.04		1
1,1-Dichloroethene	75-35-4	**0.690**	0.500	ug/L	03.25.14 12.04		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.25.14 12.04		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 12.04		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 12.04		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 12.04		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 12.04		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 12.04		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 12.04		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 12.04		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 12.04		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 12.04		1

C24/12/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB94-0200-23260** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-008 Date Collected: 03.20.14 12.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.25.14 09.57

Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 12.04		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 12.04		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 12.04		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 12.04		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 12.04		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 12.04		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 12.04		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 12.04		1
Tetrachloroethylene	127-18-4	**3.91**	0.500	ug/L	03.25.14 12.04		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 12.04		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 12.04		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 12.04		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 12.04		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 12.04		1
Trichloroethene	79-01-6	**3.41**	0.500	ug/L	03.25.14 12.04		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 12.04		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 12.04		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 12.04		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 12.04		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 12.04		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 12.04		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 12.04		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 12.04		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 12.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.25.14 12.04	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	03.25.14 12.04	
Toluene-D8	2037-26-5	99	%	70-130	03.25.14 12.04	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.25.14 12.04	

CEA 4/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB117-0100-21149** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-009 Date Collected: 03.20.14 12.50

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.25.14 09.57
Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 12.30		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 12.30		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 12.30		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 12.30		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 12.30		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 12.30	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 12.30		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 12.30		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 12.30		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 12.30		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 12.30		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 12.30		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 12.30		1
Chloroform	67-66-3	**1.90**	0.500	ug/L	03.25.14 12.30		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 12.30		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 12.30		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 12.30		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 12.30		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 12.30		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 12.30		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 12.30		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 12.30		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 12.30		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 12.30		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 12.30		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 12.30		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.25.14 12.30		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 12.30		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.25.14 12.30		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.25.14 12.30		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 12.30		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 12.30		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 12.30		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 12.30		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 12.30		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 12.30		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 12.30		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 12.30		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 12.30		1

02/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB117-0100-21149** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-009 Date Collected: 03.20.14 12.50

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.25.14 09.57

Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 12.30		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 12.30		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 12.30		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 12.30		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 12.30		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 12.30		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 12.30		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 12.30		1
Tetrachloroethylene	127-18-4	**2.04**	0.500	ug/L	03.25.14 12.30		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 12.30		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 12.30		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 12.30		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 12.30		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 12.30		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.25.14 12.30		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 12.30		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 12.30		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 12.30		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 12.30		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 12.30		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 12.30		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 12.30		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 12.30		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 12.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	96	%	69-133	03.25.14 12.30	
1,2-Dichloroethane-D4	17060-07-0	105	%	66-139	03.25.14 12.30	
Toluene-D8	2037-26-5	101	%	70-130	03.25.14 12.30	
4-Bromofluorobenzene	460-00-4	98	%	70-135	03.25.14 12.30	

Final 1.000

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB130-0100-19159** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-010 Date Collected: 03.20.14 14.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.25.14 09.57

Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 12.56		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 12.56		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 12.56		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 12.56		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 12.56		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 12.56	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 12.56		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 12.56		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 12.56		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 12.56		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 12.56		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 12.56		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 12.56		1
Chloroform	67-66-3	**0.830**	0.500	ug/L	03.25.14 12.56		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 12.56		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 12.56		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 12.56		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 12.56		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 12.56		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 12.56		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 12.56		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 12.56		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 12.56		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 12.56		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 12.56		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 12.56		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.25.14 12.56		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 12.56		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.25.14 12.56		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.25.14 12.56		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 12.56		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 12.56		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 12.56		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 12.56		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 12.56		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 12.56		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 12.56		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 12.56		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 12.56		1

Final 1.000

03/25/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB130-0100-19159** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-010 Date Collected: 03.20.14 14.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.25.14 09.57

Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 12.56		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 12.56		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 12.56		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 12.56		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 12.56		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 12.56		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 12.56		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 12.56		1
Tetrachloroethylene	127-18-4	**2.18**	0.500	ug/L	03.25.14 12.56		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 12.56		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 12.56		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 12.56		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 12.56		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 12.56		1
Trichloroethene	79-01-6	**6.86**	0.500	ug/L	03.25.14 12.56		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 12.56		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 12.56		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 12.56		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 12.56		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 12.56		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 12.56		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 12.56		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 12.56		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 12.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	03.25.14 12.56	
1,2-Dichloroethane-D4	17060-07-0	108	%	66-139	03.25.14 12.56	
Toluene-D8	2037-26-5	102	%	70-130	03.25.14 12.56	
4-Bromofluorobenzene	460-00-4	98	%	70-135	03.25.14 12.56	

CA 4/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0100-15210** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-011 Date Collected: 03.20.14 14.50

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.25.14 09.57
Seq Number: 937078

Dilution Analysis:
Seq#: 937150 Date Analyzed: 03/26/14 21:20 Date Prep: 03/26/14 15:30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 13.22		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 13.22		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 13.22		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 13.22		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 13.22		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 13.22	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 13.22		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 13.22		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 13.22		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 13.22		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 13.22		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 13.22		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 13.22		1
Chloroform	67-66-3	**2.06**	0.500	ug/L	03.25.14 13.22		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 13.22		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 13.22		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 13.22		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 13.22		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 13.22		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 13.22		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 13.22		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 13.22		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 13.22		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 13.22		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 13.22		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 13.22		1
1,1-Dichloroethane	75-34-3	**8.27**	0.500	ug/L	03.25.14 13.22		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 13.22		1
1,1-Dichloroethene	75-35-4	**16.6**	0.500	ug/L	03.25.14 13.22		1
cis-1,2-Dichloroethene	156-59-2	**28.6**	0.500	ug/L	03.25.14 13.22		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 13.22		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 13.22		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 13.22		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 13.22		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 13.22		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 13.22		1

 Final 1.000

CS 4/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0100-15210** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-011 Date Collected: 03.20.14 14.50

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.25.14 09.57

Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 13.22		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 13.22		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 13.22		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 13.22		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 13.22		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 13.22		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 13.22		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 13.22		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 13.22		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 13.22		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 13.22		1
Tetrachloroethylene	127-18-4	**9.66**	0.500	ug/L	03.25.14 13.22		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 13.22		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 13.22		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 13.22		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 13.22		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 13.22		1
Trichloroethene	79-01-6	**183**	5.00	ug/L	03.26.14 21.20	D2	10
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 13.22		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 13.22		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 13.22		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 13.22		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 13.22		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 13.22		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 13.22		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 13.22		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 13.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	96	%	69-133	03.25.14 13.22	
1,2-Dichloroethane-D4	17060-07-0	108	%	66-139	03.25.14 13.22	
Toluene-D8	2037-26-5	102	%	70-130	03.25.14 13.22	
4-Bromofluorobenzene	460-00-4	100	%	70-135	03.25.14 13.22	

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0101-15210** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-012 Date Collected: 03.20.14 14.55

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.25.14 09.57
Seq Number: 937078

Dilution Analysis:
Seq#: 937150 Date Analyzed: 03/26/14 21:46 Date Prep: 03/26/14 15:30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 13.48		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 13.48		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 13.48		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 13.48		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 13.48		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 13.48	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 13.48		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 13.48		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 13.48		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 13.48		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 13.48		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 13.48		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 13.48		1
Chloroform	67-66-3	**2.11**	0.500	ug/L	03.25.14 13.48		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 13.48		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 13.48		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 13.48		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 13.48		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 13.48		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 13.48		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 13.48		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 13.48		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 13.48		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 13.48		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 13.48		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 13.48		1
1,1-Dichloroethane	75-34-3	**8.24**	0.500	ug/L	03.25.14 13.48		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 13.48		1
1,1-Dichloroethene	75-35-4	**16.5**	0.500	ug/L	03.25.14 13.48		1
cis-1,2-Dichloroethene	156-59-2	**28.6**	0.500	ug/L	03.25.14 13.48		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 13.48		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 13.48		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 13.48		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 13.48		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 13.48		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 13.48		1

02/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0101-15210** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-012 Date Collected: 03.20.14 14.55

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.25.14 09.57
Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 13.48		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 13.48		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 13.48		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 13.48		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 13.48		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 13.48		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 13.48		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 13.48		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 13.48		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 13.48		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 13.48		1
Tetrachloroethylene	127-18-4	**9.62**	0.500	ug/L	03.25.14 13.48		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 13.48		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 13.48		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 13.48		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 13.48		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 13.48		1
Trichloroethene	79-01-6	**189**	5.00	ug/L	03.26.14 21.46	D2	10
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 13.48		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 13.48		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 13.48		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 13.48		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 13.48		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 13.48		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 13.48		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 13.48		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 13.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.25.14 13.48	
1,2-Dichloroethane-D4	17060-07-0	109	%	66-139	03.25.14 13.48	
Toluene-D8	2037-26-5	103	%	70-130	03.25.14 13.48	
4-Bromofluorobenzene	460-00-4	100	%	70-135	03.25.14 13.48	

04/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0100-21134** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-013 Date Collected: 03.20.14 15.15

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.25.14 09.57
Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 14.14		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 14.14		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 14.14		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 14.14		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 14.14		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 14.14	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 14.14		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 14.14		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 14.14		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 14.14		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 14.14		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 14.14		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 14.14		1
Chloroform	67-66-3	**1.30**	0.500	ug/L	03.25.14 14.14		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 14.14		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 14.14		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 14.14		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 14.14		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 14.14		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 14.14		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 14.14		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 14.14		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 14.14		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 14.14		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 14.14		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 14.14		1
1,1-Dichloroethane	75-34-3	**0.690**	0.500	ug/L	03.25.14 14.14		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 14.14		1
1,1-Dichloroethene	75-35-4	**1.10**	0.500	ug/L	03.25.14 14.14		1
cis-1,2-Dichloroethene	156-59-2	**0.740**	0.500	ug/L	03.25.14 14.14		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 14.14		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 14.14		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 14.14		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 14.14		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 14.14		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 14.14		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 14.14		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 14.14		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 14.14		1

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Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0100-21134** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-013 Date Collected: 03.20.14 15.15

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.25.14 09.57
Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 14.14		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 14.14		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 14.14		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 14.14		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 14.14		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 14.14		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 14.14		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 14.14		1
Tetrachloroethylene	127-18-4	**1.03**	0.500	ug/L	03.25.14 14.14		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 14.14		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 14.14		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 14.14		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 14.14		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 14.14		1
Trichloroethene	79-01-6	**4.04**	0.500	ug/L	03.25.14 14.14		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 14.14		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 14.14		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 14.14		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 14.14		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 14.14		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 14.14		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 14.14		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 14.14		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 14.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	69-133	03.25.14 14.14	
1,2-Dichloroethane-D4	17060-07-0	111	%	66-139	03.25.14 14.14	
Toluene-D8	2037-26-5	103	%	70-130	03.25.14 14.14	
4-Bromofluorobenzene	460-00-4	100	%	70-135	03.25.14 14.14	

CEW 4/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0101-21134** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-014 Date Collected: 03.20.14 15.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.25.14 09.57

Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 14.40		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 14.40		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 14.40		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 14.40		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 14.40		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 14.40	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 14.40		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 14.40		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 14.40		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 14.40		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 14.40		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 14.40		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 14.40		1
Chloroform	67-66-3	**1.27**	0.500	ug/L	03.25.14 14.40		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 14.40		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 14.40		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 14.40		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 14.40		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 14.40		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 14.40		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 14.40		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 14.40		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 14.40		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 14.40		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 14.40		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 14.40		1
1,1-Dichloroethane	75-34-3	**0.680**	0.500	ug/L	03.25.14 14.40		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 14.40		1
1,1-Dichloroethene	75-35-4	**0.990**	0.500	ug/L	03.25.14 14.40		1
cis-1,2-Dichloroethene	156-59-2	**0.720**	0.500	ug/L	03.25.14 14.40		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 14.40		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 14.40		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 14.40		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 14.40		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 14.40		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 14.40		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 14.40		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 14.40		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 14.40		1

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Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0101-21134** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-014 Date Collected: 03.20.14 15.20

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.25.14 09.57
Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 14.40		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 14.40		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 14.40		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 14.40		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 14.40		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 14.40		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 14.40		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 14.40		1
Tetrachloroethylene	127-18-4	**1.06**	0.500	ug/L	03.25.14 14.40		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 14.40		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 14.40		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 14.40		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 14.40		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 14.40		1
Trichloroethene	79-01-6	**4.08**	0.500	ug/L	03.25.14 14.40		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 14.40		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 14.40		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 14.40		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 14.40		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 14.40		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 14.40		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 14.40		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 14.40		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 14.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	03.25.14 14.40	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.25.14 14.40	
Toluene-D8	2037-26-5	100	%	70-130	03.25.14 14.40	
4-Bromofluorobenzene	460-00-4	99	%	70-135	03.25.14 14.40	

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Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0100-19215** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-015 Date Collected: 03.20.14 15.50

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.25.14 09.57
Seq Number: 937078

Dilution Analysis:
Seq#: 937150 Date Analyzed: 03/26/14 22:12 Date Prep: 03/26/14 15:30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 15.07		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 15.07		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 15.07		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 15.07		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 15.07		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 15.07	NI	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 15.07		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 15.07		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 15.07		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 15.07		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 15.07		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 15.07		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 15.07		1
Chloroform	67-66-3	**0.990**	0.500	ug/L	03.25.14 15.07		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 15.07		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 15.07		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 15.07		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 15.07		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 15.07		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 15.07		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 15.07		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 15.07		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 15.07		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 15.07		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 15.07		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 15.07		1
1,1-Dichloroethane	75-34-3	**2.92**	0.500	ug/L	03.25.14 15.07		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 15.07		1
1,1-Dichloroethene	75-35-4	**10.3**	0.500	ug/L	03.25.14 15.07		1
cis-1,2-Dichloroethene	156-59-2	**14.1**	0.500	ug/L	03.25.14 15.07		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 15.07		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 15.07		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 15.07		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 15.07		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 15.07		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 15.07		1

04/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0100-19215** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-015 Date Collected: 03.20.14 15.50

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.25.14 09.57

Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 15.07		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 15.07		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 15.07		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 15.07		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 15.07		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 15.07		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 15.07		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 15.07		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 15.07		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 15.07		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 15.07		1
Tetrachloroethylene	127-18-4	**7.77**	0.500	ug/L	03.25.14 15.07		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 15.07		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 15.07		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 15.07		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 15.07		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 15.07		1
Trichloroethene	79-01-6	**127**	5.00	ug/L	03.26.14 22.12	D2	10
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 15.07		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 15.07		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 15.07		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 15.07		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 15.07		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 15.07		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 15.07		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 15.07		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 15.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	96	%	69-133	03.25.14 15.07	
1,2-Dichloroethane-D4	17060-07-0	108	%	66-139	03.25.14 15.07	
Toluene-D8	2037-26-5	101	%	70-130	03.25.14 15.07	
4-Bromofluorobenzene	460-00-4	99	%	70-135	03.25.14 15.07	

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Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB123-0100-19148** Matrix: Water Date Received:03.20.14 16.59

Lab Sample Id: 481609-016 Date Collected: 03.20.14 16.15

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.25.14 09.57

Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 15.32		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 15.32		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 15.32		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 15.32		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 15.32		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 15.32	N1	1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 15.32		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 15.32		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 15.32		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 15.32		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 15.32		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 15.32		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 15.32		1
Chloroform	67-66-3	**1.33**	0.500	ug/L	03.25.14 15.32		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 15.32		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 15.32		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 15.32		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 15.32		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 15.32		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 15.32		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 15.32		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 15.32		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 15.32		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 15.32		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 15.32		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 15.32		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.25.14 15.32		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 15.32		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.25.14 15.32		1
cis-1,2-Dichloroethene	156-59-2	**0.500**	0.500	ug/L	03.25.14 15.32		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 15.32		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 15.32		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 15.32		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 15.32		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 15.32		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 15.32		1
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 15.32		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 15.32		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 15.32		1

Final 1.000

04/22/14

Certificate of Analytical Results 481609

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB123-0100-19148** Matrix: Water Date Received:03.20.14 16.59
Lab Sample Id: 481609-016 Date Collected: 03.20.14 16.15

Analytical Method: VOC's by SW 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.25.14 09.57
Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 15.32		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 15.32		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 15.32		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 15.32		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 15.32		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 15.32		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 15.32		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 15.32		1
Tetrachloroethylene	127-18-4	**0.970**	0.500	ug/L	03.25.14 15.32		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 15.32		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 15.32		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 15.32		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 15.32		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 15.32		1
Trichloroethene	79-01-6	**4.83**	0.500	ug/L	03.25.14 15.32		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 15.32		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 15.32		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 15.32		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 15.32		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 15.32		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 15.32		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 15.32		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 15.32		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 15.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	69-133	03.25.14 15.32	
1,2-Dichloroethane-D4	17060-07-0	113	%	66-139	03.25.14 15.32	
Toluene-D8	2037-26-5	103	%	70-130	03.25.14 15.32	
4-Bromofluorobenzene	460-00-4	100	%	70-135	03.25.14 15.32	

04/22/14

LDC #: 31346I1a (6) **VALIDATION COMPLETENESS WORKSHEET** Date: 4/18/14

SDG #: 481609 Level III Page: 1 of 1

Laboratory: Xenco Laboratories Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/20/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	481550-011MS/D, 481683-005MS/D
VIII.	Laboratory control samples	SW	
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 5, 6 11, 12 13, 14
XVII.	Field blanks	ND	TB = 1

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Water

1	1	AVB95-0202-1000 TB	11 2	3 AVB132-0100-15210 D_1	21	652822-1-BLK	31	
2	1	AVB95-0200-X230	12 2	3 AVB132-0101-15210 D_1	22	652962-1-BLK	32	
3	1	AVB95-0100-23138	13 2	AVB116-0100-21134 D_2	23	653067-1-BLK	33	
4	1	AVB92-0200-XXX	14 2	AVB116-0101-21134 D_2	24		34	
5	1	AVB100-0100-16138 D	15 2	3 AVB124-0100-19215	25		35	
6	1	AVB100-0101-16138 D	16 2	AVB123-0100-19148	26		36	
7	1	3 AVB119-0100-20148	17 2	AVB94-0200-23260MS	27		37	
8	2	AVB94-0200-23260	18 2	AVB94-0200-23260MSD	28		38	
9	2	AVB117-0100-21149	19		29		39	
10	2	AVB130-0100-19159	20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

.LDC #: 31646I1a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of
Reviewer: FT
2nd Reviewer: 9

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	17 + 18	B	242 (53-141)	163 (53-141)	39 (22)	8	J/A det (MS, RS)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 31646I1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: CR

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652822-LCS/D	B	( )	( )	38 (25)	1→7, 652822-1-BLK	J/UJ/P (R7)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	652962-LCS/D	B	141 (58-138)	( )	( )	8→16, ~~652962-LCS~~ F7	J/P dnt (L1)
			( )	( )	( )	652962-1-BLK	
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC: 31646I1a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT

2nd Reviewer: ✓

Method: GC/MS VOA (EPA SW 846 Method 8260B)

Analyte	Concentration (µg/L)		RPD (≤ 20%)	Qualifiers (Parents Only)
	5	6		
AA	27.2	27.1	0	
S	0.850	0.940	10	

Analyte	Concentration (µg/L)		RPD (≤ 20%)	Qualifiers (Parents Only)
	11	12		
K	2.06	2.11	2	
L	8.27	8.24	0	
H	16.6	16.5	1	
QQQ	28.6	28.6	0	
AA	9.66	9.62	0	
S	183	189	3	

Analyte	Concentration (µg/L)		RPD (≤ 20%)	Qualifiers (Parents Only)
	13	14		
K	1.30	1.27	2	
I	0.690	0.680	1	
H	1.10	0.990	11	
QQQ	0.740	0.720	3	
AA	1.03	1.06	3	
S	4.04	4.08	1	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 24, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 481683

Sample Identification

AVB74-0102-1000
AVB74-0100-34090
AVB71-0100-27133
AVB73-0100-24118
AVB12-0100-38106
AVB57-0100-33100
AVB106-0100-27100
AVB106-0104-1000
AVB12-0100-38106MS
AVB12-0100-38106MSD

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB74-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB106-0104-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
AVB12-0100-38106MS/MSD (AVB12-0100-38106)	Bromomethane	182 (53-141)	188 (53-141)	-	J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652962-LCS/D (AVB74-0102-1000 AVB74-0100-34090 652962-1-BLK)	Bromomethane	141 (58-138)	-	-	J (all detects)	P
653067-LCS/D (AVB71-0100-27133 AVB73-0100-24118 AVB12-0100-38106 AVB57-0100-33100 AVB106-0100-27100 AVB106-0104-1000 653067-1-BLK)	Bromomethane	177 (58-138)	147 (58-138)	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481683

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481683	AVB12-0100-38106	Bromomethane	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (M1)
481683	AVB74-0102-1000 AVB74-0100-34090	Bromomethane	J (all detects)	P	Laboratory control samples (%R) (L1)
481683	AVB71-0100-27133 AVB73-0100-24118 AVB12-0100-38106 AVB57-0100-33100 AVB106-0100-27100 AVB106-0104-1000	Bromomethane	J (all detects)	P	Laboratory control samples (%R) (L1)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481683

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481683

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB74-0102-1000**
Lab Sample Id: 481683-001

Matrix: Water
Date Collected: 03.24.14 08.00

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937078

Date Prep: 03.25.14 09.57

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.25.14 20.15		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 20.15		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 20.15		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 20.15		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 20.15		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 20.15		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 20.15	N1	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.25.14 20.15		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.25.14 20.15		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 20.15		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 20.15		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 20.15		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 20.15		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 20.15		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 20.15		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 20.15		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.25.14 20.15		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 20.15		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 20.15		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 20.15		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 20.15		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 20.15		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 20.15		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 20.15		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 20.15		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 20.15		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 20.15		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 20.15		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 20.15		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.25.14 20.15		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 20.15		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.25.14 20.15		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.25.14 20.15		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 20.15		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 20.15		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 20.15		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 20.15		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 20.15		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 20.15		1

Final 1.000

04/22/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB74-0102-1000**
Lab Sample Id: 481683-001

Matrix: Water
Date Collected: 03.24.14 08.00

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937078

Date Prep: 03.25.14 09.57

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 20.15		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 20.15		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 20.15		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.25.14 20.15		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 20.15		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 20.15		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 20.15		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.25.14 20.15		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 20.15		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 20.15		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 20.15		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 20.15		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 20.15		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.25.14 20.15		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 20.15		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 20.15		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 20.15		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 20.15		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 20.15		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.25.14 20.15		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 20.15		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 20.15		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 20.15		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 20.15		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 20.15		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 20.15		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 20.15		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 20.15		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 20.15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	03.25.14 20.15	
1,2-Dichloroethane-D4	17060-07-0	105	%	66-139	03.25.14 20.15	
Toluene-D8	2037-26-5	102	%	70-130	03.25.14 20.15	
4-Bromofluorobenzene	460-00-4	99	%	70-135	03.25.14 20.15	

Final 1.000

02/22/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB74-0100-34090**
Lab Sample Id: 481683-002

Matrix: Water
Date Collected: 03.24.14 08.55

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937078

Date Prep: 03.25.14 09.57

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.25.14 20.41		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.25.14 20.41		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.25.14 20.41		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.25.14 20.41		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.25.14 20.41		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.25.14 20.41		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.25.14 20.41	N1	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.25.14 20.41		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.25.14 20.41		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.25.14 20.41		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.25.14 20.41		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.25.14 20.41		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.25.14 20.41		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.25.14 20.41		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.25.14 20.41		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.25.14 20.41		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.25.14 20.41		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.25.14 20.41		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.25.14 20.41		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.25.14 20.41		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.25.14 20.41		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.25.14 20.41		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.25.14 20.41		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.25.14 20.41		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.25.14 20.41		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.25.14 20.41		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.25.14 20.41		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.25.14 20.41		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.25.14 20.41		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.25.14 20.41		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.25.14 20.41		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.25.14 20.41		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.25.14 20.41		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.25.14 20.41		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.25.14 20.41		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.25.14 20.41		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.25.14 20.41		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.25.14 20.41		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.25.14 20.41		1

Final 1.000

04/22/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB74-0100-34090** Matrix: Water Date Received:03.24.14 14.50

Lab Sample Id: 481683-002 Date Collected: 03.24.14 08.55

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.25.14 09.57

Seq Number: 937078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.25.14 20.41		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.25.14 20.41		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.25.14 20.41		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.25.14 20.41		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.25.14 20.41		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.25.14 20.41		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.25.14 20.41		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.25.14 20.41		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.25.14 20.41		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.25.14 20.41		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.25.14 20.41		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.25.14 20.41		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.25.14 20.41		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.25.14 20.41		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.25.14 20.41		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.25.14 20.41		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.25.14 20.41		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.25.14 20.41		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.25.14 20.41		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.25.14 20.41		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.25.14 20.41		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.25.14 20.41		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.25.14 20.41		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.25.14 20.41		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.25.14 20.41		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.25.14 20.41		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.25.14 20.41		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.25.14 20.41		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.25.14 20.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	95	%	69-133	03.25.14 20.41	
1,2-Dichloroethane-D4	17060-07-0	106	%	66-139	03.25.14 20.41	
Toluene-D8	2037-26-5	100	%	70-130	03.25.14 20.41	
4-Bromofluorobenzene	460-00-4	98	%	70-135	03.25.14 20.41	

04/22/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB71-0100-27133**
Lab Sample Id: 481683-003

Matrix: Water
Date Collected: 03.24.14 10.10

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937150

Date Prep: 03.26.14 15.30

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.26.14 18.20		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.26.14 18.20		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.26.14 18.20		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.26.14 18.20		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.26.14 18.20		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.26.14 18.20		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.26.14 18.20	N1V1	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.26.14 18.20		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.26.14 18.20		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.26.14 18.20		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.26.14 18.20		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.26.14 18.20		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.26.14 18.20		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.26.14 18.20		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.26.14 18.20		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.26.14 18.20		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.26.14 18.20		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.26.14 18.20		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.26.14 18.20		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.26.14 18.20		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.26.14 18.20	V1	1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.26.14 18.20		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.26.14 18.20		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.26.14 18.20		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.26.14 18.20		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.26.14 18.20		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.26.14 18.20		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.26.14 18.20		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.26.14 18.20		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.26.14 18.20		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.26.14 18.20		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.26.14 18.20		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.26.14 18.20		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.26.14 18.20		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.26.14 18.20		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.26.14 18.20		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.26.14 18.20		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.26.14 18.20		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.26.14 18.20		1

Final 1.000

CRA 12/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB71-0100-27133**
Lab Sample Id: 481683-003

Matrix: Water
Date Collected: 03.24.14 10.10

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937150

Date Prep: 03.26.14 15.30

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.26.14 18.20		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.26.14 18.20		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.26.14 18.20		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.26.14 18.20		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.26.14 18.20		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.26.14 18.20		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.26.14 18.20		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.26.14 18.20		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.26.14 18.20		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.26.14 18.20		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.26.14 18.20		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.26.14 18.20		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.26.14 18.20		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.26.14 18.20		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.26.14 18.20		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.26.14 18.20		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.26.14 18.20		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.26.14 18.20		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.26.14 18.20		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.26.14 18.20		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.26.14 18.20		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.26.14 18.20		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.26.14 18.20		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.26.14 18.20		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.26.14 18.20		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.26.14 18.20		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.26.14 18.20		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.26.14 18.20		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.26.14 18.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	91	%	69-133	03.26.14 18.20	
1,2-Dichloroethane-D4	17060-07-0	90	%	66-139	03.26.14 18.20	
Toluene-D8	2037-26-5	99	%	70-130	03.26.14 18.20	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.26.14 18.20	

Final 1.000

C2 4/22/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB73-0100-24118**
Lab Sample Id: 481683-004

Matrix: Water
Date Collected: 03.24.14 10.50

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937150

Date Prep: 03.26.14 15.30

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.26.14 18.46		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.26.14 18.46		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.26.14 18.46		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.26.14 18.46		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.26.14 18.46		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.26.14 18.46		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.26.14 18.46	N1V1	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.26.14 18.46		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.26.14 18.46		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.26.14 18.46		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.26.14 18.46		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.26.14 18.46		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.26.14 18.46		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.26.14 18.46		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.26.14 18.46		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.26.14 18.46		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.26.14 18.46		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.26.14 18.46		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.26.14 18.46		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.26.14 18.46		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.26.14 18.46	V1	1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.26.14 18.46		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.26.14 18.46		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.26.14 18.46		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.26.14 18.46		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.26.14 18.46		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.26.14 18.46		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.26.14 18.46		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.26.14 18.46		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.26.14 18.46		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.26.14 18.46		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.26.14 18.46		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.26.14 18.46		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.26.14 18.46		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.26.14 18.46		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.26.14 18.46		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.26.14 18.46		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.26.14 18.46		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.26.14 18.46		1

Final 1.000

C24122114

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB73-0100-24118**
Lab Sample Id: 481683-004

Matrix: Water
Date Collected: 03.24.14 10.50

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937150

Date Prep: 03.26.14 15.30

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.26.14 18.46		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.26.14 18.46		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.26.14 18.46		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.26.14 18.46		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.26.14 18.46		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.26.14 18.46		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.26.14 18.46		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.26.14 18.46		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.26.14 18.46		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.26.14 18.46		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.26.14 18.46		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.26.14 18.46		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.26.14 18.46		1
Tetrachloroethylene	127-18-4	**5.52**	0.500	ug/L	03.26.14 18.46		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.26.14 18.46		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.26.14 18.46		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.26.14 18.46		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.26.14 18.46		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.26.14 18.46		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.26.14 18.46		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.26.14 18.46		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.26.14 18.46		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.26.14 18.46		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.26.14 18.46		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.26.14 18.46		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.26.14 18.46		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.26.14 18.46		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.26.14 18.46		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.26.14 18.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	92	%	69-133	03.26.14 18.46	
1,2-Dichloroethane-D4	17060-07-0	94	%	66-139	03.26.14 18.46	
Toluene-D8	2037-26-5	100	%	70-130	03.26.14 18.46	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.26.14 18.46	

Final 1.000

C24122/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB12-0100-38106**
Lab Sample Id: 481683-005

Matrix: Water
Date Collected: 03.24.14 12.10

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937150

Date Prep: 03.26.14 15.30

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.26.14 19.12		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.26.14 19.12		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.26.14 19.12		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.26.14 19.12		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.26.14 19.12		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.26.14 19.12		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.26.14 19.12	N1V1	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.26.14 19.12		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.26.14 19.12		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.26.14 19.12		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.26.14 19.12		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.26.14 19.12		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.26.14 19.12		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.26.14 19.12		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.26.14 19.12		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.26.14 19.12		1
Chloroform	67-66-3	**0.500**	0.500	ug/L	03.26.14 19.12		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.26.14 19.12		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.26.14 19.12		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.26.14 19.12		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.26.14 19.12	V1	1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.26.14 19.12		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.26.14 19.12		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.26.14 19.12		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.26.14 19.12		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.26.14 19.12		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.26.14 19.12		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.26.14 19.12		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.26.14 19.12		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.26.14 19.12		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.26.14 19.12		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.26.14 19.12		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.26.14 19.12		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.26.14 19.12		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.26.14 19.12		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.26.14 19.12		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.26.14 19.12		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.26.14 19.12		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.26.14 19.12		1

04/22/14

Final 1.000

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB12-0100-38106**
Lab Sample Id: 481683-005

Matrix: Water
Date Collected: 03.24.14 12.10

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937150

Date Prep: 03.26.14 15.30

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.26.14 19.12		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.26.14 19.12		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.26.14 19.12		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.26.14 19.12		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.26.14 19.12		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.26.14 19.12		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.26.14 19.12		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.26.14 19.12		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.26.14 19.12		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.26.14 19.12		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.26.14 19.12		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.26.14 19.12		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.26.14 19.12		1
Tetrachloroethylene	127-18-4	**3.16**	0.500	ug/L	03.26.14 19.12		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.26.14 19.12		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.26.14 19.12		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.26.14 19.12		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.26.14 19.12		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.26.14 19.12		1
Trichloroethene	79-01-6	**3.19**	0.500	ug/L	03.26.14 19.12		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.26.14 19.12		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.26.14 19.12		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.26.14 19.12		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.26.14 19.12		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.26.14 19.12		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.26.14 19.12		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.26.14 19.12		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.26.14 19.12		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.26.14 19.12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	92	%	69-133	03.26.14 19.12	
1,2-Dichloroethane-D4	17060-07-0	96	%	66-139	03.26.14 19.12	
Toluene-D8	2037-26-5	101	%	70-130	03.26.14 19.12	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.26.14 19.12	

Final 1.000

CL 4/22/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB57-0100-33100** Matrix: Water Date Received:03.24.14 14.50
Lab Sample Id: 481683-006 Date Collected: 03.24.14 12.47

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.26.14 15.30
Seq Number: 937150

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.26.14 19.37		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.26.14 19.37		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.26.14 19.37		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.26.14 19.37		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.26.14 19.37		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.26.14 19.37		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.26.14 19.37	N1V1	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.26.14 19.37		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.26.14 19.37		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.26.14 19.37		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.26.14 19.37		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.26.14 19.37		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.26.14 19.37		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.26.14 19.37		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.26.14 19.37		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.26.14 19.37		1
Chloroform	67-66-3	**0.610**	0.500	ug/L	03.26.14 19.37		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.26.14 19.37		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.26.14 19.37		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.26.14 19.37		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.26.14 19.37	V1	1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.26.14 19.37		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.26.14 19.37		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.26.14 19.37		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.26.14 19.37		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.26.14 19.37		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.26.14 19.37		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.26.14 19.37		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.26.14 19.37		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.26.14 19.37		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.26.14 19.37		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.26.14 19.37		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.26.14 19.37		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.26.14 19.37		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.26.14 19.37		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.26.14 19.37		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.26.14 19.37		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.26.14 19.37		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.26.14 19.37		1

Final 1.000

CLY 12/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB57-0100-33100** Matrix: Water Date Received:03.24.14 14.50
Lab Sample Id: 481683-006 Date Collected: 03.24.14 12.47

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.26.14 15.30
Seq Number: 937150

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.26.14 19.37		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.26.14 19.37		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.26.14 19.37		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.26.14 19.37		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.26.14 19.37		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.26.14 19.37		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.26.14 19.37		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.26.14 19.37		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.26.14 19.37		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.26.14 19.37		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.26.14 19.37		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.26.14 19.37		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.26.14 19.37		1
Tetrachloroethylene	127-18-4	**0.990**	0.500	ug/L	03.26.14 19.37		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.26.14 19.37		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.26.14 19.37		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.26.14 19.37		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.26.14 19.37		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.26.14 19.37		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.26.14 19.37		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.26.14 19.37		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.26.14 19.37		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.26.14 19.37		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.26.14 19.37		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.26.14 19.37		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.26.14 19.37		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.26.14 19.37		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.26.14 19.37		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.26.14 19.37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	91	%	69-133	03.26.14 19.37	
1,2-Dichloroethane-D4	17060-07-0	93	%	66-139	03.26.14 19.37	
Toluene-D8	2037-26-5	99	%	70-130	03.26.14 19.37	
4-Bromofluorobenzene	460-00-4	97	%	70-135	03.26.14 19.37	

Final 1.000

CL 4/22/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB106-0100-27100**
Lab Sample Id: 481683-007

Matrix: Water
Date Collected: 03.24.14 13.30

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937150

Date Prep: 03.26.14 15.30

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.26.14 20.03		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.26.14 20.03		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.26.14 20.03		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.26.14 20.03		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.26.14 20.03		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.26.14 20.03		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.26.14 20.03	N1V1	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.26.14 20.03		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.26.14 20.03		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.26.14 20.03		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.26.14 20.03		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.26.14 20.03		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.26.14 20.03		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.26.14 20.03		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.26.14 20.03		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.26.14 20.03		1
Chloroform	67-66-3	**6.08**	0.500	ug/L	03.26.14 20.03		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.26.14 20.03		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.26.14 20.03		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.26.14 20.03		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.26.14 20.03	V1	1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.26.14 20.03		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.26.14 20.03		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.26.14 20.03		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.26.14 20.03		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.26.14 20.03		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.26.14 20.03		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.26.14 20.03		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.26.14 20.03		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.26.14 20.03		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.26.14 20.03		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.26.14 20.03		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.26.14 20.03		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.26.14 20.03		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.26.14 20.03		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.26.14 20.03		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.26.14 20.03		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.26.14 20.03		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.26.14 20.03		1

Final 1.000

C24/22/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB106-0100-27100**
Lab Sample Id: 481683-007

Matrix: Water
Date Collected: 03.24.14 13.30

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937150

Date Prep: 03.26.14 15.30

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.26.14 20.03		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.26.14 20.03		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.26.14 20.03		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.26.14 20.03		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.26.14 20.03		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.26.14 20.03		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.26.14 20.03		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.26.14 20.03		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.26.14 20.03		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.26.14 20.03		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.26.14 20.03		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.26.14 20.03		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.26.14 20.03		1
Tetrachloroethylene	127-18-4	**4.62**	0.500	ug/L	03.26.14 20.03		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.26.14 20.03		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.26.14 20.03		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.26.14 20.03		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.26.14 20.03		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.26.14 20.03		1
Trichloroethene	79-01-6	**16.4**	0.500	ug/L	03.26.14 20.03		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.26.14 20.03		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.26.14 20.03		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.26.14 20.03		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.26.14 20.03		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.26.14 20.03		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.26.14 20.03		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.26.14 20.03		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.26.14 20.03		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.26.14 20.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	91	%	69-133	03.26.14 20.03	
1,2-Dichloroethane-D4	17060-07-0	96	%	66-139	03.26.14 20.03	
Toluene-D8	2037-26-5	102	%	70-130	03.26.14 20.03	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.26.14 20.03	

Final 1.000

CL 4/22/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB106-0104-1000** Matrix: Water Date Received:03.24.14 14.50
Lab Sample Id: 481683-008 Date Collected: 03.24.14 14.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.26.14 15.30
Seq Number: 937150

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.26.14 20.29		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.26.14 20.29		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.26.14 20.29		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.26.14 20.29		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.26.14 20.29		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.26.14 20.29		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.26.14 20.29	N1V1	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.26.14 20.29		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.26.14 20.29		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.26.14 20.29		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.26.14 20.29		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.26.14 20.29		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.26.14 20.29		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.26.14 20.29		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.26.14 20.29		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.26.14 20.29		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.26.14 20.29		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.26.14 20.29		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.26.14 20.29		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.26.14 20.29		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.26.14 20.29	V1	1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.26.14 20.29		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.26.14 20.29		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.26.14 20.29		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.26.14 20.29		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.26.14 20.29		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.26.14 20.29		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.26.14 20.29		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.26.14 20.29		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.26.14 20.29		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.26.14 20.29		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.26.14 20.29		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.26.14 20.29		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.26.14 20.29		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.26.14 20.29		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.26.14 20.29		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.26.14 20.29		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.26.14 20.29		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.26.14 20.29		1

02/22/14

Final 1.000

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB106-0104-1000**
Lab Sample Id: 481683-008

Matrix: Water
Date Collected: 03.24.14 14.35

Date Received:03.24.14 14.50

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937150

Date Prep: 03.26.14 15.30

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.26.14 20.29		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.26.14 20.29		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.26.14 20.29		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.26.14 20.29		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.26.14 20.29		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.26.14 20.29		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.26.14 20.29		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.26.14 20.29		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.26.14 20.29		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.26.14 20.29		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.26.14 20.29		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.26.14 20.29		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.26.14 20.29		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.26.14 20.29		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.26.14 20.29		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.26.14 20.29		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.26.14 20.29		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.26.14 20.29		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.26.14 20.29		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.26.14 20.29		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.26.14 20.29		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.26.14 20.29		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.26.14 20.29		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.26.14 20.29		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.26.14 20.29		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.26.14 20.29		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.26.14 20.29		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.26.14 20.29		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.26.14 20.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	92	%	69-133	03.26.14 20.29	
1,2-Dichloroethane-D4	17060-07-0	97	%	66-139	03.26.14 20.29	
Toluene-D8	2037-26-5	100	%	70-130	03.26.14 20.29	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.26.14 20.29	

Final 1.000

C2 4/22/14

LDC #: 31~~3~~46J1a

SDG #: 481683

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 3/18/14

Page: 1 of 1

Reviewer: EJ

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	481609-008MS/D
VIII.	Laboratory control samples	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 1 EB = 8

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

Water

1	1	AVB74-0102-1000 TB	11	1	652962-1-BLK	21		31	
2	1 8	AVB74-0100-34090	12	2	653067-1-BLK	22		32	
3	2	AVB71-0100-27133	13			23		33	
4	2	AVB73-0100-24118	14			24		34	
5	2	AVB12-0100-38106	15			25		35	
6	2	AVB57-0100-33100	16			26		36	
7	2	AVB106-0100-27100	17			27		37	
8	2	AVB106-0104-1000 EB	18			28		38	
9		AVB12-0100-38106MS	19			29		39	
10		AVB12-0100-38106MSD	20			30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

.LDC #: 31646J/a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: FT
2nd Reviewer: [illegible]

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	9+10	B	182 (53-141)	188 (53-141)	( )	5	J/Adt (M1)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 31646J1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: 9

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652962-LCS/D	B	141 (58-138)	( )	( )	1, 2, 652962-1-BLK	J/P det (L1)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	653067-LCS/D	B	177 (58-138)	147 (58-138)	( )	3→8, 653067-1-BLK	J/P det (L1)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 24, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Chromium

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 481683

Sample Identification

AVB74-0100-34090
AVB71-0100-27133
AVB73-0100-24118
AVB12-0100-38106
AVB57-0100-33100
AVB106-0100-27100
AVB106-0104-1000
AVB74-0100-34090F
AVB71-0100-27133F
AVB73-0100-24118F
AVB12-0100-38106F
AVB57-0100-33100F
AVB106-0100-27100F
AVB106-0104-1000F
AVB74-0100-34090FMS
AVB74-0100-34090FMSD

Sample IDs appended with "F" were analyzed for dissolved chromium.

Introduction

This data review covers 16 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Chromium.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Level III.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No chromium was found in the preparation blanks.

Samples AVB106-0104-1000 and AVB106-0104-1000F were identified as equipment blanks. No chromium was found.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for Level III.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

IX. Sample Result Verification

Raw data was not reviewed for this SDG.

X. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XI. Field Duplicates

No field duplicates were identified in this SDG.

X. Sample Result Verification

Raw data was not reviewed for this SDG.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Chromium - Data Qualification Summary - SDG 481683

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Laboratory Blank Data Qualification Summary - SDG 481683

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Field Blank Data Qualification Summary - SDG 481683

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB74-0100-34090** Matrix: Water Date Received:03.24.14 14.50
Lab Sample Id: 481683-002 Date Collected: 03.24.14 08.55

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.27.14 09.00
Seq Number: 937213 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**10.9**	0.0100	mg/L	03.27.14 17.55		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0295**	0.0100	mg/L	04.10.14 00.31		1

04/21/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB71-0100-27133** Matrix: Water Date Received:03.24.14 14.50
Lab Sample Id: 481683-003 Date Collected: 03.24.14 10.10

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.27.14 09.00
Seq Number: 937213 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0646**	0.0100	mg/L	03.27.14 18.01		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 01.04		1

CR 4/21/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB73-0100-24118** Matrix: Water Date Received:03.24.14 14.50
Lab Sample Id: 481683-004 Date Collected: 03.24.14 10.50

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.27.14 09.00
Seq Number: 937213 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**1.98**	0.0100	mg/L	03.27.14 18.07		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 01.11		1

CZ 4/21/14

Final 1.000

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB12-0100-38106** Matrix: Water Date Received:03.24.14 14.50

Lab Sample Id: 481683-005 Date Collected: 03.24.14 12.10

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.27.14 09.00

Seq Number: 937213 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0316**	0.0100	mg/L	03.27.14 18.13		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.31.14 10.30

Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 01.31		1

CL 4/21/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB57-0100-33100** Matrix: Water Date Received:03.24.14 14.50
Lab Sample Id: 481683-006 Date Collected: 03.24.14 12.47

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.27.14 09.00
Seq Number: 937213 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.325**	0.0100	mg/L	03.27.14 18.19		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 01.37		1

CR 4/21/14

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB106-0100-27100** Matrix: Water Date Received:03.24.14 14.50
Lab Sample Id: 481683-007 Date Collected: 03.24.14 13.30

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.27.14 09.00
Seq Number: 937213 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0282**	0.0100	mg/L	03.27.14 18.25		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 01.44		1

Certificate of Analytical Results 481683

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB106-0104-1000** Matrix: Water Date Received:03.24.14 14.50

Lab Sample Id: 481683-008 Date Collected: 03.24.14 14.35

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.27.14 09.00

Seq Number: 937213 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	03.27.14 18.31		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 03.31.14 10.30

Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 01.50		1

CS 4/24/14

LDC #: 31346J4 **VALIDATION COMPLETENESS WORKSHEET** Date: 4/17/14

SDG #: 481683 Level III Page: 1 of 1

Laboratory: Xenco Laboratories Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: Chromium (EPA SW846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/14
II.	Calibration	N	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Matrix Spike Analysis	A	MS/D
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS/D
~~VIII.~~	~~Internal Standard (ICP-MS)~~	~~N~~	
IX.	ICP Serial Dilution	N	
X.	Sample Result Verification	N	
XI.	Overall Assessment of Data	A	
XII.	Field Duplicates	N	
XIII.	Field Blanks	ND	EB=7, 14

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB74-0100-34090	11	AVB12-0100-38106F	21		11	
2	AVB71-0100-27133	12	AVB57-0100-33100F	22		12	
3	AVB73-0100-24118	13	AVB106-0100-27100F	23		13	
4	AVB12-0100-38106	14	AVB106-0104-1000F	24		14	
5	AVB57-0100-33100	15	AVB74-0100-34090FMS	25		15	
6	AVB106-0100-27100	16	AVB74-0100-34090FMSD	26		16	
7	AVB106-0104-1000	17		27		17	
8	AVB74-0100-34090F	18		28		18	
9	AVB71-0100-27133F	19		29		19	
10	AVB73-0100-24118F	20		30		20	

Notes: Samples appended with "F" were analyzed for dissolved chromium

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 25, 2014
LDC Report Date:	May 16, 2014
Matrix:	Water
Parameters:	Volatiles
Validation Level:	EPA Level IV
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481853

Sample Identification

AVB91-0102-1000
AVB91-0100-23135
AVB145-0100-01136
AVB145-0101-01136
AVB75-0100-27125
AVB135-0100-14127
AVB92-0100-21137
AVB93-0100-21136
AVB88-0100-25110
AVB125-0100-19125
AVB69-0200-03114
AVB97-0100-22111
AVB97-0104-1000
AVB91-0100-23135MS
AVB91-0100-23135MSD

Introduction

This data review covers 15 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/28/14	Chloromethane Bromomethane Acetone 2-Butanone Vinyl acetate	35 27 54 30 29	AVB91-0102-1000 653207-1-BLK	J (all detects) UJ (all non-detects)	A

Date	Compound	%D	Associated Samples	Flag	A or P
3/30/14	Bromomethane	26	AVB91-0100-23135 AVB145-0100-01136 AVB145-0101-01136 AVB75-0100-27125 AVB135-0100-14127 AVB92-0100-21137 AVB93-0100-21136 AVB88-0100-25110 AVB125-0100-19125 AVB69-0200-03114 AVB97-0100-22111 AVB97-0104-1000 AVB91-0100-23135MS AVB91-0100-23135MSD 653208-1-BLK	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/27/14	Iodomethane	21	AVB91-0102-1000 653207-1-BLK	J (all detects) UJ (all non-detects)	A
3/29/14	Bromomethane	25	AVB91-0100-23135 AVB145-0100-01136 AVB145-0101-01136 AVB75-0100-27125 AVB135-0100-14127 AVB92-0100-21137 AVB93-0100-21136 AVB88-0100-25110 AVB125-0100-19125 AVB69-0200-03114 AVB97-0100-22111 AVB97-0104-1000 AVB91-0100-23135MS AVB91-0100-23135MSD 653208-1-BLK	J (all detects) UJ (all non-detects)	A

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB91-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB97-0104-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
AVB91-0100-23135MS/MSD (AVB91-0100-23135)	Styrene	37 (49-142)	-	55 (≤37)	J (all detects) UJ (all non-detects)	A
AVB91-0100-23135MS/MSD (AVB91-0100-23135)	Vinyl acetate	-	-	38 (≤23)	J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
653207-LCS/D (AVB91-0102-1000)	Acetone	247 (55-165)	-	42 (≤28)	J (all detects) UJ (all non-detects)	P
653207-LCS/D (AVB91-0102-1000)	2-Butanone Chloromethane 2-Hexanone	175 (58-146) - 136 (65-129)	- 148 (47-144) -	- - -	J (all detects) J (all detects) J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation

All compound quantitations were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples AVB145-0100-01136 and AVB145-0101-01136 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB145-0100-01136	AVB145-0101-01136			
Vinyl chloride	1.08	1.07	1 (≤20)	-	-
Tetrachloroethene	3.31	3.44	4 (≤20)	-	-
Trichloroethene	2.17	2.19	1 (≤20)	-	-

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481853

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481853	AVB91-0102-1000	Chloromethane Bromomethane Acetone 2-Butanone Vinyl acetate	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (V1)
481853	AVB91-0100-23135 AVB145-0100-01136 AVB145-0101-01136 AVB75-0100-27125 AVB135-0100-14127 AVB92-0100-21137 AVB93-0100-21136 AVB88-0100-25110 AVB125-0100-19125 AVB69-0200-03114 AVB97-0100-22111 AVB97-0104-1000	Bromomethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (V1)
481853	AVB91-0102-1000	Iodomethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (V1)
481853	AVB91-0100-23135 AVB145-0100-01136 AVB145-0101-01136 AVB75-0100-27125 AVB135-0100-14127 AVB92-0100-21137 AVB93-0100-21136 AVB88-0100-25110 AVB125-0100-19125 AVB69-0200-03114 AVB97-0100-22111 AVB97-0104-1000	Bromomethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (V1)
481853	AVB91-0100-23135	Styrene	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (M2, R5)
481853	AVB91-0100-23135	Vinyl acetate	J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (R5)
481853	AVB91-0102-1000	Acetone	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)(RPD) (L1, R7)
481853	AVB91-0102-1000	2-Butanone Chloromethane 2-Hexanone	J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R) (L1)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481853

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481853

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0102-1000**
Lab Sample Id: 481853-001

Matrix: Water
Date Collected: 03.25.14 08.00

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937377

Date Prep: 03.29.14 18.05

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0 U3(V1, P7)	20.0	ug/L	03.29.14 04.21	L1	1
Benzene	71-43-2	<0.500	0.500	ug/L	03.29.14 04.21		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.29.14 04.21		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.29.14 04.21		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.29.14 04.21		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.29.14 04.21		1
Bromomethane	74-83-9	<5.00 U3(V1)	5.00	ug/L	03.29.14 04.21		1
2-Butanone	78-93-3	<5.00 U3(V1)	5.00	ug/L	03.29.14 04.21	N1	1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.29.14 04.21		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.29.14 04.21		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.29.14 04.21		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.29.14 04.21		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.29.14 04.21		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.29.14 04.21		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.29.14 04.21		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.29.14 04.21		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.29.14 04.21		1
Chloromethane	74-87-3	<5.00 U3 (V1)	5.00	ug/L	03.29.14 04.21	N1	1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.29.14 04.21		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.29.14 04.21		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.29.14 04.21		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.29.14 04.21		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.29.14 04.21		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.29.14 04.21		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.29.14 04.21		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.29.14 04.21		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.29.14 04.21		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.29.14 04.21		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.29.14 04.21		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.29.14 04.21		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.29.14 04.21		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.29.14 04.21		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.29.14 04.21		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.29.14 04.21		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.29.14 04.21		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.29.14 04.21		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.29.14 04.21		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.29.14 04.21		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.29.14 04.21		1

CE 4/23/14

Final 1.000

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0102-1000**
Lab Sample Id: 481853-001

Matrix: Water
Date Collected: 03.25.14 08.00

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937377

Date Prep: 03.29.14 18.05

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.29.14 04.21		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.29.14 04.21		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.29.14 04.21		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.29.14 04.21	N1	1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.29.14 04.21		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.29.14 04.21		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00 U3(V1)	2.00	ug/L	03.29.14 04.21		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.29.14 04.21		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.29.14 04.21		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.29.14 04.21		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.29.14 04.21		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.29.14 04.21		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.29.14 04.21		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.29.14 04.21		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.29.14 04.21		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.29.14 04.21		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.29.14 04.21		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.29.14 04.21		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.29.14 04.21		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.29.14 04.21		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.29.14 04.21		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.29.14 04.21		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.29.14 04.21		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.29.14 04.21		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.29.14 04.21		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.29.14 04.21		1
Vinyl Acetate	108-05-4	<5.00 U3(V1)	5.00	ug/L	03.29.14 04.21		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.29.14 04.21		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.29.14 04.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	69-133	03.29.14 04.21	
1,2-Dichloroethane-D4	17060-07-0	100	%	66-139	03.29.14 04.21	
Toluene-D8	2037-26-5	100	%	70-130	03.29.14 04.21	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.29.14 04.21	

Final 1.000

CR 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0100-23135** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-002 Date Collected: 03.25.14 08.15

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.30.14 17.42
Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.30.14 19.58		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.30.14 19.58		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.30.14 19.58		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.30.14 19.58		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.30.14 19.58		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.30.14 19.58		1
Bromomethane	74-83-9	<5.00 U3(V1)	5.00	ug/L	03.30.14 19.58		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.30.14 19.58		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.30.14 19.58		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.30.14 19.58		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.30.14 19.58		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.30.14 19.58		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.30.14 19.58		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.30.14 19.58		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.30.14 19.58		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.30.14 19.58		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.30.14 19.58		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.30.14 19.58		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.30.14 19.58		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.30.14 19.58		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.30.14 19.58		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.30.14 19.58		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.30.14 19.58		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.30.14 19.58		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.30.14 19.58		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.30.14 19.58		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.30.14 19.58		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.30.14 19.58		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.30.14 19.58		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.30.14 19.58		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.30.14 19.58		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.30.14 19.58		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.30.14 19.58		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.30.14 19.58		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.30.14 19.58		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.30.14 19.58		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.30.14 19.58		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.30.14 19.58		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.30.14 19.58		1

04/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0100-23135**
Lab Sample Id: 481853-002

Matrix: Water
Date Collected: 03.25.14 08.15

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.30.14 19.58		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.30.14 19.58		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.30.14 19.58		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.30.14 19.58		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.30.14 19.58		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.30.14 19.58		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.30.14 19.58		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.30.14 19.58		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.30.14 19.58		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.30.14 19.58		1
Styrene	100-42-5	<1.00 US(M2)	1.00	ug/L	03.30.14 19.58	M2	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.30.14 19.58		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.30.14 19.58		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.30.14 19.58		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.30.14 19.58		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.30.14 19.58		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.30.14 19.58		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.30.14 19.58		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.30.14 19.58		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.30.14 19.58		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.30.14 19.58		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.30.14 19.58		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.30.14 19.58		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.30.14 19.58		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.30.14 19.58		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.30.14 19.58		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.30.14 19.58		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.30.14 19.58		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.30.14 19.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	03.30.14 19.58	
1,2-Dichloroethane-D4	17060-07-0	96	%	66-139	03.30.14 19.58	
Toluene-D8	2037-26-5	98	%	70-130	03.30.14 19.58	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.30.14 19.58	

Final 1.000

CR 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB145-0100-01136**
Lab Sample Id: 481853-003

Matrix: Water
Date Collected: 03.25.14 09.00

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.30.14 20.24		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.30.14 20.24		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.30.14 20.24		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.30.14 20.24		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.30.14 20.24		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.30.14 20.24		1
Bromomethane	74-83-9	<5.00 US(VI)	5.00	ug/L	03.30.14 20.24		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.30.14 20.24		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.30.14 20.24		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.30.14 20.24		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.30.14 20.24		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.30.14 20.24		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.30.14 20.24		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.30.14 20.24		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.30.14 20.24		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.30.14 20.24		1
Chloroform	67-66-3	**1.08**	0.500	ug/L	03.30.14 20.24		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.30.14 20.24		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.30.14 20.24		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.30.14 20.24		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.30.14 20.24		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.30.14 20.24		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.30.14 20.24		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.30.14 20.24		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.30.14 20.24		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.30.14 20.24		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.30.14 20.24		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.30.14 20.24		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.30.14 20.24		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.30.14 20.24		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.30.14 20.24		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.30.14 20.24		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.30.14 20.24		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.30.14 20.24		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.30.14 20.24		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.30.14 20.24		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.30.14 20.24		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.30.14 20.24		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.30.14 20.24		1

Final 1.000

CR 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB145-0100-01136** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-003 Date Collected: 03.25.14 09.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.30.14 17.42
Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.30.14 20.24		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.30.14 20.24		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.30.14 20.24		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.30.14 20.24		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.30.14 20.24		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.30.14 20.24		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.30.14 20.24		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.30.14 20.24		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.30.14 20.24		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.30.14 20.24		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.30.14 20.24		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.30.14 20.24		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.30.14 20.24		1
Tetrachloroethylene	127-18-4	**3.31**	0.500	ug/L	03.30.14 20.24		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.30.14 20.24		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.30.14 20.24		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.30.14 20.24		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.30.14 20.24		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.30.14 20.24		1
Trichloroethene	79-01-6	**2.17**	0.500	ug/L	03.30.14 20.24		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.30.14 20.24		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.30.14 20.24		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.30.14 20.24		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.30.14 20.24		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.30.14 20.24		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.30.14 20.24		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.30.14 20.24		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.30.14 20.24		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.30.14 20.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.30.14 20.24	
1,2-Dichloroethane-D4	17060-07-0	99	%	66-139	03.30.14 20.24	
Toluene-D8	2037-26-5	99	%	70-130	03.30.14 20.24	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.30.14 20.24	

04/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB145-0101-01136** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-004 Date Collected: 03.25.14 09.05

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.30.14 17.42
Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.30.14 20.49		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.30.14 20.49		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.30.14 20.49		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.30.14 20.49		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.30.14 20.49		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.30.14 20.49		1
Bromomethane	74-83-9	<5.00 US(VI)	5.00	ug/L	03.30.14 20.49		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.30.14 20.49		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.30.14 20.49		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.30.14 20.49		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.30.14 20.49		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.30.14 20.49		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.30.14 20.49		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.30.14 20.49		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.30.14 20.49		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.30.14 20.49		1
Chloroform	67-66-3	**1.07**	0.500	ug/L	03.30.14 20.49		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.30.14 20.49		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.30.14 20.49		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.30.14 20.49		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.30.14 20.49		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.30.14 20.49		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.30.14 20.49		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.30.14 20.49		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.30.14 20.49		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.30.14 20.49		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.30.14 20.49		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.30.14 20.49		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.30.14 20.49		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.30.14 20.49		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.30.14 20.49		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.30.14 20.49		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.30.14 20.49		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.30.14 20.49		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.30.14 20.49		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.30.14 20.49		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.30.14 20.49		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.30.14 20.49		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.30.14 20.49		1

Final 1.000

04/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB145-0101-01136**
Lab Sample Id: 481853-004

Matrix: Water
Date Collected: 03.25.14 09.05

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.30.14 20.49		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.30.14 20.49		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.30.14 20.49		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.30.14 20.49		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.30.14 20.49		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.30.14 20.49		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.30.14 20.49		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.30.14 20.49		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.30.14 20.49		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.30.14 20.49		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.30.14 20.49		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.30.14 20.49		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.30.14 20.49		1
Tetrachloroethylene	127-18-4	**3.44**	0.500	ug/L	03.30.14 20.49		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.30.14 20.49		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.30.14 20.49		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.30.14 20.49		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.30.14 20.49		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.30.14 20.49		1
Trichloroethene	79-01-6	**2.19**	0.500	ug/L	03.30.14 20.49		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.30.14 20.49		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.30.14 20.49		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.30.14 20.49		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.30.14 20.49		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.30.14 20.49		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.30.14 20.49		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.30.14 20.49		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.30.14 20.49		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.30.14 20.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	96	%	69-133	03.30.14 20.49	
1,2-Dichloroethane-D4	17060-07-0	98	%	66-139	03.30.14 20.49	
Toluene-D8	2037-26-5	97	%	70-130	03.30.14 20.49	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.30.14 20.49	

Final 1.000

CR 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB75-0100-27125**
Lab Sample Id: 481853-005

Matrix: Water
Date Collected: 03.25.14 09.40

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.30.14 21.15		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.30.14 21.15		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.30.14 21.15		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.30.14 21.15		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.30.14 21.15		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.30.14 21.15		1
Bromomethane	74-83-9	<5.00 UJ(vl)	5.00	ug/L	03.30.14 21.15		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.30.14 21.15		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.30.14 21.15		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.30.14 21.15		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.30.14 21.15		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.30.14 21.15		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.30.14 21.15		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.30.14 21.15		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.30.14 21.15		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.30.14 21.15		1
Chloroform	67-66-3	**0.680**	0.500	ug/L	03.30.14 21.15		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.30.14 21.15		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.30.14 21.15		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.30.14 21.15		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.30.14 21.15		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.30.14 21.15		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.30.14 21.15		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.30.14 21.15		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.30.14 21.15		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.30.14 21.15		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.30.14 21.15		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.30.14 21.15		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.30.14 21.15		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.30.14 21.15		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.30.14 21.15		1
1,1-Dichloroethene	75-35-4	**0.760**	0.500	ug/L	03.30.14 21.15		1
cis-1,2-Dichloroethene	156-59-2	**0.790**	0.500	ug/L	03.30.14 21.15		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.30.14 21.15		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.30.14 21.15		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.30.14 21.15		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.30.14 21.15		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.30.14 21.15		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.30.14 21.15		1

Final 1.000

CL 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB75-0100-27125** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-005 Date Collected: 03.25.14 09.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.30.14 17.42
Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.30.14 21.15		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.30.14 21.15		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.30.14 21.15		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.30.14 21.15		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.30.14 21.15		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.30.14 21.15		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.30.14 21.15		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.30.14 21.15		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.30.14 21.15		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.30.14 21.15		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.30.14 21.15		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.30.14 21.15		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.30.14 21.15		1
Tetrachloroethylene	127-18-4	**11.0**	0.500	ug/L	03.30.14 21.15		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.30.14 21.15		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.30.14 21.15		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.30.14 21.15		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.30.14 21.15		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.30.14 21.15		1
Trichloroethene	79-01-6	**1.84**	0.500	ug/L	03.30.14 21.15		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.30.14 21.15		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.30.14 21.15		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.30.14 21.15		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.30.14 21.15		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.30.14 21.15		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.30.14 21.15		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.30.14 21.15		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.30.14 21.15		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.30.14 21.15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.30.14 21.15	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	03.30.14 21.15	
Toluene-D8	2037-26-5	100	%	70-130	03.30.14 21.15	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.30.14 21.15	

04/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB135-0100-14127**
Lab Sample Id: 481853-006

Matrix: Water
Date Collected: 03.25.14 10.25

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.30.14 21.41		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.30.14 21.41		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.30.14 21.41		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.30.14 21.41		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.30.14 21.41		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.30.14 21.41		1
Bromomethane	74-83-9	<5.00 VS(VI)	5.00	ug/L	03.30.14 21.41		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.30.14 21.41		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.30.14 21.41		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.30.14 21.41		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.30.14 21.41		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.30.14 21.41		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.30.14 21.41		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.30.14 21.41		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.30.14 21.41		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.30.14 21.41		1
Chloroform	67-66-3	**0.610**	0.500	ug/L	03.30.14 21.41		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.30.14 21.41		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.30.14 21.41		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.30.14 21.41		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.30.14 21.41		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.30.14 21.41		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.30.14 21.41		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.30.14 21.41		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.30.14 21.41		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.30.14 21.41		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.30.14 21.41		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.30.14 21.41		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.30.14 21.41		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.30.14 21.41		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.30.14 21.41		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.30.14 21.41		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.30.14 21.41		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.30.14 21.41		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.30.14 21.41		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.30.14 21.41		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.30.14 21.41		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.30.14 21.41		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.30.14 21.41		1

Final 1.000

CR 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB135-0100-14127** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-006 Date Collected: 03.25.14 10.25

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.30.14 17.42
Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.30.14 21.41		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.30.14 21.41		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.30.14 21.41		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.30.14 21.41		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.30.14 21.41		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.30.14 21.41		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.30.14 21.41		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.30.14 21.41		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.30.14 21.41		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.30.14 21.41		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.30.14 21.41		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.30.14 21.41		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.30.14 21.41		1
Tetrachloroethylene	127-18-4	**0.820**	0.500	ug/L	03.30.14 21.41		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.30.14 21.41		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.30.14 21.41		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.30.14 21.41		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.30.14 21.41		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.30.14 21.41		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.30.14 21.41		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.30.14 21.41		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.30.14 21.41		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.30.14 21.41		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.30.14 21.41		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.30.14 21.41		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.30.14 21.41		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.30.14 21.41		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.30.14 21.41		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.30.14 21.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	69-133	03.30.14 21.41	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.30.14 21.41	
Toluene-D8	2037-26-5	101	%	70-130	03.30.14 21.41	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.30.14 21.41	

Final 1.000

02 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB92-0100-21137**
Lab Sample Id: 481853-007

Matrix: Water
Date Collected: 03.25.14 11.00

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.30.14 22.07		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.30.14 22.07		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.30.14 22.07		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.30.14 22.07		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.30.14 22.07		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.30.14 22.07		1
Bromomethane	74-83-9	<5.00 US(V1)	5.00	ug/L	03.30.14 22.07		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.30.14 22.07		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.30.14 22.07		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.30.14 22.07		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.30.14 22.07		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.30.14 22.07		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.30.14 22.07		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.30.14 22.07		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.30.14 22.07		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.30.14 22.07		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.30.14 22.07		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.30.14 22.07		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.30.14 22.07		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.30.14 22.07		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.30.14 22.07		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.30.14 22.07		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.30.14 22.07		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.30.14 22.07		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.30.14 22.07		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.30.14 22.07		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.30.14 22.07		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.30.14 22.07		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.30.14 22.07		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.30.14 22.07		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.30.14 22.07		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.30.14 22.07		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.30.14 22.07		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.30.14 22.07		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.30.14 22.07		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.30.14 22.07		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.30.14 22.07		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.30.14 22.07		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.30.14 22.07		1

Final 1.000

CR 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB92-0100-21137**
Lab Sample Id: 481853-007

Matrix: Water
Date Collected: 03.25.14 11.00

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.30.14 22.07		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.30.14 22.07		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.30.14 22.07		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.30.14 22.07		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.30.14 22.07		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.30.14 22.07		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.30.14 22.07		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.30.14 22.07		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.30.14 22.07		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.30.14 22.07		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.30.14 22.07		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.30.14 22.07		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.30.14 22.07		1
Tetrachloroethylene	127-18-4	**1.08**	0.500	ug/L	03.30.14 22.07		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.30.14 22.07		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.30.14 22.07		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.30.14 22.07		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.30.14 22.07		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.30.14 22.07		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.30.14 22.07		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.30.14 22.07		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.30.14 22.07		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.30.14 22.07		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.30.14 22.07		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.30.14 22.07		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.30.14 22.07		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.30.14 22.07		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.30.14 22.07		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.30.14 22.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.30.14 22.07	
1,2-Dichloroethane-D4	17060-07-0	102	%	66-139	03.30.14 22.07	
Toluene-D8	2037-26-5	99	%	70-130	03.30.14 22.07	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.30.14 22.07	

Final 1.000

CR 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB93-0100-21136**
Lab Sample Id: 481853-008

Matrix: Water
Date Collected: 03.25.14 11.35

Date Received: 03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.30.14 22.32		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.30.14 22.32		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.30.14 22.32		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.30.14 22.32		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.30.14 22.32		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.30.14 22.32		1
Bromomethane	74-83-9	<5.00 U3(V1)	5.00	ug/L	03.30.14 22.32		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.30.14 22.32		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.30.14 22.32		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.30.14 22.32		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.30.14 22.32		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.30.14 22.32		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.30.14 22.32		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.30.14 22.32		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.30.14 22.32		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.30.14 22.32		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.30.14 22.32		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.30.14 22.32		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.30.14 22.32		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.30.14 22.32		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.30.14 22.32		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.30.14 22.32		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.30.14 22.32		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.30.14 22.32		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.30.14 22.32		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.30.14 22.32		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.30.14 22.32		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.30.14 22.32		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.30.14 22.32		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.30.14 22.32		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.30.14 22.32		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.30.14 22.32		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.30.14 22.32		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.30.14 22.32		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.30.14 22.32		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.30.14 22.32		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.30.14 22.32		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.30.14 22.32		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.30.14 22.32		1

Final 1.000

CL 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB93-0100-21136**
Lab Sample Id: 481853-008

Matrix: Water
Date Collected: 03.25.14 11.35

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.30.14 22.32		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.30.14 22.32		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.30.14 22.32		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.30.14 22.32		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.30.14 22.32		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.30.14 22.32		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.30.14 22.32		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.30.14 22.32		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.30.14 22.32		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.30.14 22.32		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.30.14 22.32		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.30.14 22.32		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.30.14 22.32		1
Tetrachloroethylene	127-18-4	**13.3**	0.500	ug/L	03.30.14 22.32		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.30.14 22.32		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.30.14 22.32		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.30.14 22.32		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.30.14 22.32		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.30.14 22.32		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.30.14 22.32		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.30.14 22.32		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.30.14 22.32		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.30.14 22.32		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.30.14 22.32		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.30.14 22.32		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.30.14 22.32		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.30.14 22.32		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.30.14 22.32		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.30.14 22.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.30.14 22.32	
1,2-Dichloroethane-D4	17060-07-0	102	%	66-139	03.30.14 22.32	
Toluene-D8	2037-26-5	98	%	70-130	03.30.14 22.32	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.30.14 22.32	

Final 1.000

CR 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB88-0100-25110** Matrix: Water Date Received:03.25.14 15.45

Lab Sample Id: 481853-009 Date Collected: 03.25.14 12.52

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.30.14 17.42

Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.30.14 22.58		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.30.14 22.58		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.30.14 22.58		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.30.14 22.58		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.30.14 22.58		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.30.14 22.58		1
Bromomethane	74-83-9	<5.00 US(vi)	5.00	ug/L	03.30.14 22.58		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.30.14 22.58		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.30.14 22.58		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.30.14 22.58		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.30.14 22.58		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.30.14 22.58		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.30.14 22.58		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.30.14 22.58		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.30.14 22.58		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.30.14 22.58		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.30.14 22.58		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.30.14 22.58		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.30.14 22.58		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.30.14 22.58		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.30.14 22.58		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.30.14 22.58		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.30.14 22.58		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.30.14 22.58		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.30.14 22.58		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.30.14 22.58		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.30.14 22.58		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.30.14 22.58		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.30.14 22.58		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.30.14 22.58		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.30.14 22.58		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.30.14 22.58		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.30.14 22.58		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.30.14 22.58		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.30.14 22.58		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.30.14 22.58		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.30.14 22.58		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.30.14 22.58		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.30.14 22.58		1

CL 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB88-0100-25110**
Lab Sample Id: 481853-009

Matrix: Water
Date Collected: 03.25.14 12.52

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.30.14 22.58		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.30.14 22.58		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.30.14 22.58		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.30.14 22.58		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.30.14 22.58		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.30.14 22.58		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.30.14 22.58		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.30.14 22.58		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.30.14 22.58		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.30.14 22.58		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.30.14 22.58		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.30.14 22.58		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.30.14 22.58		1
Tetrachloroethylene	127-18-4	**79.6**	0.500	ug/L	03.30.14 22.58		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.30.14 22.58		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.30.14 22.58		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.30.14 22.58		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.30.14 22.58		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.30.14 22.58		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.30.14 22.58		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.30.14 22.58		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.30.14 22.58		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.30.14 22.58		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.30.14 22.58		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.30.14 22.58		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.30.14 22.58		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.30.14 22.58		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.30.14 22.58		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.30.14 22.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	69-133	03.30.14 22.58	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.30.14 22.58	
Toluene-D8	2037-26-5	98	%	70-130	03.30.14 22.58	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.30.14 22.58	

Final 1.000

02-4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB125-0100-19125** Matrix: Water Date Received:03.25.14 15.45

Lab Sample Id: 481853-010 Date Collected: 03.25.14 13.28

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.30.14 17.42

Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.30.14 23.24		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.30.14 23.24		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.30.14 23.24		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.30.14 23.24		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.30.14 23.24		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.30.14 23.24		1
Bromomethane	74-83-9	<5.00 VJ(V1)	5.00	ug/L	03.30.14 23.24		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.30.14 23.24		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.30.14 23.24		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.30.14 23.24		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.30.14 23.24		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.30.14 23.24		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.30.14 23.24		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.30.14 23.24		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.30.14 23.24		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.30.14 23.24		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.30.14 23.24		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.30.14 23.24		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.30.14 23.24		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.30.14 23.24		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.30.14 23.24		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.30.14 23.24		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.30.14 23.24		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.30.14 23.24		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.30.14 23.24		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.30.14 23.24		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.30.14 23.24		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.30.14 23.24		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.30.14 23.24		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.30.14 23.24		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.30.14 23.24		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.30.14 23.24		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.30.14 23.24		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.30.14 23.24		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.30.14 23.24		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.30.14 23.24		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.30.14 23.24		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.30.14 23.24		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.30.14 23.24		1

CL 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB125-0100-19125** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-010 Date Collected: 03.25.14 13.28

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.30.14 17.42
Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.30.14 23.24		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.30.14 23.24		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.30.14 23.24		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.30.14 23.24		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.30.14 23.24		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.30.14 23.24		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.30.14 23.24		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.30.14 23.24		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.30.14 23.24		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.30.14 23.24		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.30.14 23.24		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.30.14 23.24		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.30.14 23.24		1
Tetrachloroethylene	127-18-4	**25.8**	0.500	ug/L	03.30.14 23.24		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.30.14 23.24		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.30.14 23.24		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.30.14 23.24		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.30.14 23.24		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.30.14 23.24		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.30.14 23.24		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.30.14 23.24		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.30.14 23.24		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.30.14 23.24		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.30.14 23.24		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.30.14 23.24		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.30.14 23.24		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.30.14 23.24		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.30.14 23.24		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.30.14 23.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	69-133	03.30.14 23.24	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.30.14 23.24	
Toluene-D8	2037-26-5	100	%	70-130	03.30.14 23.24	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.30.14 23.24	

CZ4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB69-0200-03114** Matrix: Water Date Received:03.25.14 15.45

Lab Sample Id: 481853-011 Date Collected: 03.25.14 14.05

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.30.14 17.42

Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.30.14 23.50		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.30.14 23.50		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.30.14 23.50		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.30.14 23.50		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.30.14 23.50		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.30.14 23.50		1
Bromomethane	74-83-9	<5.00 UJ(VI)	5.00	ug/L	03.30.14 23.50		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.30.14 23.50		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.30.14 23.50		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.30.14 23.50		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.30.14 23.50		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.30.14 23.50		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.30.14 23.50		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.30.14 23.50		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.30.14 23.50		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.30.14 23.50		1
Chloroform	67-66-3	**0.710**	0.500	ug/L	03.30.14 23.50		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.30.14 23.50		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.30.14 23.50		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.30.14 23.50		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.30.14 23.50		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.30.14 23.50		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.30.14 23.50		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.30.14 23.50		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.30.14 23.50		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.30.14 23.50		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.30.14 23.50		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.30.14 23.50		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.30.14 23.50		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.30.14 23.50		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.30.14 23.50		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.30.14 23.50		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.30.14 23.50		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.30.14 23.50		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.30.14 23.50		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.30.14 23.50		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.30.14 23.50		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.30.14 23.50		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.30.14 23.50		1

04/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB69-0200-03114** Matrix: Water Date Received:03.25.14 15.45

Lab Sample Id: 481853-011 Date Collected: 03.25.14 14.05

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.30.14 17.42

Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.30.14 23.50		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.30.14 23.50		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.30.14 23.50		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.30.14 23.50		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.30.14 23.50		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.30.14 23.50		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.30.14 23.50		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.30.14 23.50		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.30.14 23.50		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.30.14 23.50		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.30.14 23.50		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.30.14 23.50		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.30.14 23.50		1
Tetrachloroethylene	127-18-4	**6.01**	0.500	ug/L	03.30.14 23.50		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.30.14 23.50		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.30.14 23.50		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.30.14 23.50		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.30.14 23.50		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.30.14 23.50		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.30.14 23.50		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.30.14 23.50		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.30.14 23.50		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.30.14 23.50		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.30.14 23.50		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.30.14 23.50		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.30.14 23.50		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.30.14 23.50		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.30.14 23.50		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.30.14 23.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	69-133	03.30.14 23.50	
1,2-Dichloroethane-D4	17060-07-0	105	%	66-139	03.30.14 23.50	
Toluene-D8	2037-26-5	100	%	70-130	03.30.14 23.50	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.30.14 23.50	

04/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB97-0100-22111**
Lab Sample Id: 481853-012

Matrix: Water
Date Collected: 03.25.14 14.42

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 01.07		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 01.07		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 01.07		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 01.07		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 01.07		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 01.07		1
Bromomethane	74-83-9	<5.00 US(VI)	5.00	ug/L	03.31.14 01.07		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 01.07		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 01.07		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 01.07		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 01.07		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 01.07		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 01.07		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 01.07		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 01.07		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 01.07		1
Chloroform	67-66-3	**0.810**	0.500	ug/L	03.31.14 01.07		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 01.07		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 01.07		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 01.07		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 01.07		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 01.07		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 01.07		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 01.07		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 01.07		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 01.07		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 01.07		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 01.07		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 01.07		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 01.07		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 01.07		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 01.07		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 01.07		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 01.07		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 01.07		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 01.07		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 01.07		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 01.07		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 01.07		1

Final 1.000

04/03/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB97-0100-22111**
Lab Sample Id: 481853-012

Matrix: Water
Date Collected: 03.25.14 14.42

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 01.07		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 01.07		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 01.07		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 01.07		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 01.07		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 01.07		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 01.07		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 01.07		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 01.07		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 01.07		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 01.07		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 01.07		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 01.07		1
Tetrachloroethylene	127-18-4	**0.720**	0.500	ug/L	03.31.14 01.07		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 01.07		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 01.07		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 01.07		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 01.07		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 01.07		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.31.14 01.07		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 01.07		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 01.07		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 01.07		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 01.07		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 01.07		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 01.07		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 01.07		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 01.07		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 01.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	03.31.14 01.07	
1,2-Dichloroethane-D4	17060-07-0	98	%	66-139	03.31.14 01.07	
Toluene-D8	2037-26-5	99	%	70-130	03.31.14 01.07	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.31.14 01.07	

Final 1.000

CZ 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB97-0104-1000** Matrix: Water Date Received:03.25.14 15.45

Lab Sample Id: 481853-013 Date Collected: 03.25.14 15.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.30.14 17.42

Seq Number: 937451

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 01.33		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 01.33		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 01.33		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 01.33		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 01.33		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 01.33		1
Bromomethane	74-83-9	<5.00 UJ(vi)	5.00	ug/L	03.31.14 01.33		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 01.33		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 01.33		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 01.33		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 01.33		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 01.33		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 01.33		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 01.33		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 01.33		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 01.33		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.31.14 01.33		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 01.33		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 01.33		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 01.33		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 01.33		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 01.33		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 01.33		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 01.33		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 01.33		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 01.33		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 01.33		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 01.33		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 01.33		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 01.33		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 01.33		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 01.33		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 01.33		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 01.33		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 01.33		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 01.33		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 01.33		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 01.33		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 01.33		1

C24 4/23/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB97-0104-1000**
Lab Sample Id: 481853-013

Matrix: Water
Date Collected: 03.25.14 15.00

Date Received:03.25.14 15.45

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937451

Date Prep: 03.30.14 17.42

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 01.33		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 01.33		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 01.33		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 01.33		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 01.33		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 01.33		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 01.33		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 01.33		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 01.33		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 01.33		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 01.33		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 01.33		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 01.33		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.31.14 01.33		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 01.33		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 01.33		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 01.33		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 01.33		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 01.33		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.31.14 01.33		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 01.33		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 01.33		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 01.33		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 01.33		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 01.33		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 01.33		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 01.33		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 01.33		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 01.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	94	%	69-133	03.31.14 01.33	
1,2-Dichloroethane-D4	17060-07-0	98	%	66-139	03.31.14 01.33	
Toluene-D8	2037-26-5	94	%	70-130	03.31.14 01.33	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.31.14 01.33	

Final 1.000

C2 4/23/14

LDC #: 31346K1a

SDG #: 481853

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level ~~III~~ IV

Date: 4/18/14

Page: 1 of 1

Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/25/14
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 15/30, r²
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 3, 4
XVII.	Field blanks	ND	TB = 1 EB = 13

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

Water

1	1	AVB91-0102-1000 TB	11	2	AVB69-0200-03114	21	1	653207-1-BLK	31
2	2	AVB91-0100-23135	12	2	AVB97-0100-22111	22	2	653208-1-BLK	32
3	2	AVB145-0100-01136 D	13	2	AVB97-0104-1000 EB	23			33
4	2	AVB145-0101-01136 D	14	2	AVB91-0100-23135MS	24			34
5	2	AVB75-0100-27125	15	2	AVB91-0100-23135MSD	25			35
6	2	AVB135-0100-14127	16			26			36
7	2	AVB92-0100-21137	17			27			37
8	2	AVB93-0100-21136	18			28			38
9	2	AVB88-010-25110	19			29			39
10	2	AVB125-0100-19125	20			30			40

LDC #: 31646K1a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: CR

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30%/15% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 20% and relative response factors (RRF) ≥ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 31646k1a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/RLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC #: 31646K1a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?
Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y N N/A Were all %D and RRFs within the validation criteria of ≤20 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <20.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	3/28/14 18:30	CCV	A	35		1, 653207-1-BLK	J/UJ/A (V1)
			B	27			
			F	54			
			M	30			
			HH	29			
	3/30/14 18:07	CCV	B	26		2 → 15, 653208-1-BLK	J/UJ/A (V1)
	3/27/14	ICV	NNNN	21		1, 653207-1-BLK	
	3/29/14	ICV	B	25		2 → 15, 653208-1-BLK	

.LDC #: 31646K1a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: FT
2nd Reviewer: a

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	14 & 15	FF	37 (49-142)	( )	55 (37)	2	J/UJ/A (M2, R5)
		HH	( )	( )	38 (23)	↓	J/Adt (R5)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 31646K|a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: CL

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	653207-LCS/D	F	247 (55-165)	( )	42 (28)	1, 653207-1-BLK	J/UJ/P (L1, R7)
		M	175 (58-146)	( )	( )	↓	J/Pdet (L1)
		A	( )	148 (47-144)	( )	↓	(L1)
		Z	136 (65-129)	( )	( )	↓	(L1)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		

LDC: 31646K1a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd Reviewer: a

Method: GC/MS VOA (EPA SW 846 Method 8260B)

Analyte	Concentration (µg/L)		RPD (≤ 20%)	Qualifiers (Parents Only)
	3	4		
C	1.08	1.07	1	
AA	3.31	3.44	4	
S	2.17	2.19	1	

LDC #: 31646K1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/27/14	C (1st internal standard)	0.821	0.821	0.837	0.837	10.978	10.98
			V (2nd internal standard)	1.629	1.629	1.687	1.687	10.684	10.68
			CC (3rd internal standard)	1.212	1.212	1.2893	1.2893	14.436	14.44
			AAA (4th internal standard)	3.105	3.105	3.4932	3.493	12.8459	12.85
2	ICAL	3/29/14	C (1st internal standard)	0.972	0.972	0.960	0.960	3.084	3.084
			V (2nd internal standard)	1.645	1.645	1.671	1.671	4.716	4.716
			CC (3rd internal standard)	1.142	1.142	1.165	1.165	6.192	6.192
			AAA (4th internal standard)	3.112	3.112	3.339	3.339	8.198	8.198
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31646 K1a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: CC

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = $(A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV 18:30	3/28/14	C (1st internal standard)	0.837	0.940	0.940	12.3	12.3
			V (2nd internal standard)	1.687	1.617	1.617	4.1	4.1
			CC (3rd internal standard)	1.289	1.168	1.168	9.4	9.4
			AAA (4th internal standard)	3.493	3.253	3.253	6.9	6.9
2	CCV 18:07	3/30/14	C (1st internal standard)	0.960	0.931	0.931	3.0	3.0
			V (2nd internal standard)	1.671	1.692	1.692	1.3	1.3
			CC (3rd internal standard)	1.165	1.137	1.137	2.4	2.4
			AAA (4th internal standard)	3.340	3.195	3.195	4.3	4.3
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31646K1a

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: CR

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 3

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	50.0	F1 ~~48.49~~ 49.09	98	98	0
1,2-Dichloroethane-d4	↓	49.62	99	99	↓
Toluene-d8	↓	49.65	99	99	↓
Bromofluorobenzene	↓	47.51	95	95	↓

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 31646 K/a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer: OL

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD sample: 14 + 15

Compound	Spike Added (ug/L)		Sample Concentration (ug/L)	Spiked Sample Concentration (ug/L)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	20.0	20.0	ND	21.4	20.8	107	107	104	104	3	3
Trichloroethene	↓	↓	↓	20.5	19.9	103	103	100	100	3	3
Benzene	↓	↓	↓	20.8	20.4	104	104	102	102	2	2
Toluene	↓	↓	↓	19.9	19.8	100	100	99	99	1	1
Chlorobenzene	↓	↓	↓	19.7	19.2	99	99	96	96	3	3

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31646Kla

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: FT
2nd Reviewer: CR

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS ID: 653208-LCS/D

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	20.0	20.0	19.8	20.4	99	99	102	102	3	3
Trichloroethene	↓	↓	19.9	19.6	100	100	98	98	2	2
Benzene	↓	↓	19.7	19.7	99	99	99	99	0	0
Toluene	↓	↓	19.8	20.0	99	99	100	100	1	1
Chlorobenzene	↓	↓	19.4	19.4	97	97	97	97	0	0

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31646|K|a

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
RRF	=	Relative response factor of the calibration standard.
V_o	=	Volume or weight of sample pruged in milliliters (ml) or grams (g).
Df	=	Dilution factor.
%S	=	Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. #3, K:

Conc. = $\frac{(11426)(50)(\quad)}{(346070)(1.527)(\quad)(\quad)}$

= 1.08 ug/L

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 25, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Chromium

Validation Level: EPA Level IV

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 481853

Sample Identification

AVB91-0100-23135
AVB145-0100-01136
AVB145-0101-01136
AVB75-0100-27125
AVB135-0100-14127
AVB92-0100-21137
AVB93-0100-21136
AVB88-0100-25110
AVB125-0100-19125
AVB69-0200-03114
AVB97-0100-22111
AVB97-0104-1000
AVB91-0100-23135F
AVB145-0100-01136F
AVB145-0101-01136F
AVB75-0100-27125F
AVB135-0100-14127F
AVB92-0100-21137F
AVB93-0100-21136F
AVB88-0100-25110F
AVB125-0100-19125F
AVB69-0200-03114F
AVB97-0100-22111F
AVB97-0104-1000F

Sample IDs appended with "F" were analyzed for dissolved chromium.

Introduction

This data review covers 24 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Chromium.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

ICP-MS was not utilized in this SDG.

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No chromium was found in the initial, continuing and preparation blanks.

Samples AVB97-0104-1000 and AVB97-0104-1000F were identified as equipment blanks. No chromium was found.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Internal Standards

ICP-MS was not utilized in this SDG.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XII. Sample Result Verification

All sample result verifications were acceptable.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples AVB145-0100-01136 and AVB145-0101-01136 and samples AVB145-0100-01136F and AVB145-0101-01136F were identified as field duplicates. No chromium was detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
	AVB145-0100-01136	AVB145-0101-01136			
Chromium	0.0355	0.0403	13 (≤20)	-	-

Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
	AVB145-0100-01136F	AVB145-0101-01136F			
Chromium	0.0105	0.0102	3 (≤20)	-	-

West Van Buren Area
Chromium - Data Qualification Summary - SDG 481853

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Laboratory Blank Data Qualification Summary - SDG 481853

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Field Blank Data Qualification Summary - SDG 481853

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0100-23135** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-002 Date Collected: 03.25.14 08.15

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0346**	0.0100	mg/L	04.10.14 11.55		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0202**	0.0100	mg/L	04.10.14 01.57		1

04/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB145-0100-01136** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-003 Date Collected: 03.25.14 09.00

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0355**	0.0100	mg/L	04.10.14 12.01		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0105**	0.0100	mg/L	04.10.14 02.04		1

04/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB145-0101-01136** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-004 Date Collected: 03.25.14 09.05

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0403**	0.0100	mg/L	04.10.14 12.08		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0102**	0.0100	mg/L	04.10.14 02.10		1

C24/24/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB75-0100-27125** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-005 Date Collected: 03.25.14 09.40

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**10.2**	0.0100	mg/L	04.10.14 12.15		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 02.17		1

C24/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB135-0100-14127** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-006 Date Collected: 03.25.14 10.25

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0251**	0.0100	mg/L	04.10.14 12.22		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 02.24		1

CR 4/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB92-0100-21137** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-007 Date Collected: 03.25.14 11.00

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0220**	0.0100	mg/L	04.10.14 12.28		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0120**	0.0100	mg/L	04.10.14 02.31		1

CR 4/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB93-0100-21136** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-008 Date Collected: 03.25.14 11.35

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0239**	0.0100	mg/L	04.10.14 12.35		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 02.51		1

CS 4/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB88-0100-25110** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-009 Date Collected: 03.25.14 12.52

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0688**	0.0100	mg/L	04.10.14 12.42		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0672**	0.0100	mg/L	04.10.14 02.57		1

a

Analytical Method: Total Cyanide by EPA 335.4 Prep Method: ~~E335.4P~~
Tech: BFO % Moisture:
Analyst: BFO Date Prep: ~~04.01.14 09.44~~
Seq Number: 937504 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cyanide, Total	57-12-5	<0.0100	0.0100	mg/L	04.01.14 12.01		1

04/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB125-0100-19125** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-010 Date Collected: 03.25.14 13.28

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.303**	0.0100	mg/L	04.10.14 13.02		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.296**	0.0100	mg/L	04.10.14 03.04		1

Analytical Method: Total Cyanide by EPA 335.4 Prep Method: E335.4P
Tech: BFO % Moisture:
Analyst: BFO Date Prep: 04.01.14 09.44
Seq Number: 937504 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cyanide, Total	57-12-5	<0.0100	0.0100	mg/L	04.01.14 12.02		1

CR 4/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB69-0200-03114** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-011 Date Collected: 03.25.14 14.05

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0122**	0.0100	mg/L	04.10.14 13.08		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 03.10		1

Analytical Method: Total Cyanide by EPA 335.4 Prep Method: E335.4P
Tech: BFO % Moisture:
Analyst: BFO Date Prep: 04.01.14 09.44
Seq Number: 937504 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cyanide, Total	57-12-5	<0.0100	0.0100	mg/L	04.01.14 12.07		1

02

04/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB97-0100-22111** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-012 Date Collected: 03.25.14 14.42

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 13.15		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 03.17		1

04/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB97-0104-1000** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-013 Date Collected: 03.25.14 15.00

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 13.21		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 03.23		1

04/21/14

LDC #: 31~~8~~46K4 (6) **VALIDATION COMPLETENESS WORKSHEET** Date: 4/12/14

SDG #: 481853 Level ~~III~~ IV Page: 1 of 1

Laboratory: Xenco Laboratories Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: Chromium (EPA SW846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/25/14
II.	Calibration	~~N~~ A	~~Not reviewed for Iron~~
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	~~N~~ A	
V.	Matrix Spike Analysis	A	MS/D (481683)
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS/D
~~VIII.~~	~~Internal Standard (ICP-MS)~~	~~N~~	
IX.	ICP Serial Dilution	N	
X.	Sample Result Verification	A ~~N~~	
XI.	Overall Assessment of Data	A	
XII.	Field Duplicates	SW	(2,3) (14,15)
XIII.	Field Blanks	ND	EB=12,24

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	AVB91-0100-23135	11	AVB97-0100-22111	21	AVB125-0100-19125F	11	
2	AVB145-0100-01136	12	AVB97-0104-1000	22	AVB69-0200-03114F	12	
3	AVB145-0101-01136	13	AVB91-0100-23135F	23	AVB97-0100-22111F	13	
4	AVB75-0100-27125	14	AVB145-0100-01136F	24	AVB97-0104-1000F	14	
5	AVB135-0100-14127	15	AVB145-0101-01136F	25		15	
6	AVB92-0100-21137	16	AVB75-0100-27125F	26		16	
7	AVB93-0100-21136	17	AVB135-0100-14127F	27		17	
8	AVB88-010-25110	18	AVB92-0100-21137F	28		18	
9	AVB125-0100-19125	19	AVB93-0100-21136F	29		19	
10	AVB69-0200-03114	20	AVB88-010-25110F	30		20	

Notes: Samples appended with "F" were analyzed for dissolved chromium

LDC #: 31646K4

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: ✓

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?			✓	
Were %RSD of isotopes in the tuning solution ≤5%?			✓	
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were ≤ 5X the RL.	✓			
VII. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

LDC #: 31646K4

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: V

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?		✓		
Were all percent differences (%Ds) < 10%?			✓	
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.			✓	
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?			✓	
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

LDC#: 31646K4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of
Reviewer:
2nd Reviewer:

METHOD: Metals (EPA Method 6010B)

Analyte	Concentration (mg/L)		RPD (≤20)	Qualifiers (Parents Only)
	2	3		
Chromium	0.0355	0.0403	13	

Analyte	Concentration (mg/L)		RPD (≤20)	Qualifiers (Parents Only)
	14	15		
Chromium	0.0105	0.0102	3	

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LDC #: 31646K4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: QR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{Found}{True} \times 100$$

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
ICV	ICP (Initial calibration)	Cr	2051	2000	103	—	Y
	ICP/MS (Initial calibration)						
	CVAA (Initial calibration)						
CCV8	ICP (Continuing calibration)	Cr	2051	2000	103	—	Y
	ICP/MS (Continuing calibration)						
	CVAA (Continuing calibration)						
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31646K4

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: 9R
2nd Reviewer: h

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$

Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$

Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$\%D = \frac{|I-SDR|}{I} \times 100$

Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units) (mg/L)	True / D / SDR (units) (mg/L)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	C (mg/L)	515.5	500	103	—	Y
LCS	Laboratory control sample		~~1.060~~ or 1060	1.00	~~107~~ or 106	106	↓
AVB74-0100-34090F	Matrix spike		(SSR-SR) 1.053	1.00	105	105	↓
↓	Duplicate		1.079	1.138	5	5	↓
N	ICP serial dilution						

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTCLC.4SW

LDC #: 31646K4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for Cr were recalculated and verified using the following equation:

Concentration = (RD)(FV)(Dil) / (In. Vol.)

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$1 = \frac{34.64 \text{ ug/L}}{1000} = 0.03464 \text{ mg/L}$

#	Sample ID	Analyte	Reported Concentration (mg/L)	Calculated Concentration (mg/L)	Acceptable (Y/N)
	1	Cr	0.0346	0.0346	Y
	2		0.0355	0.0355	
	3		0.0403	0.0403	
	4		10.2	10.2	
	5		0.0251	0.0251	
	6		0.0220	0.0220	
	7		0.0239	0.0239	
	8		0.0688	0.0688	
	9		0.303	0.303	
	10		0.0122	0.0122	
	13		0.0202	0.0202	
	14		0.0105	0.0105	
	15		0.0102	0.0102	
	18		0.0120	0.0120	
	20		0.0672	0.0672	
	21		0.296	0.296	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 25, 2014
LDC Report Date:	April 21, 2014
Matrix:	Water
Parameters:	Total Cyanide
Validation Level:	Level IV
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481853

Sample Identification

AVB88-0100-25110
AVB125-0100-19125
AVB69-0200-03114

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 335.4 for Total Cyanide.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration were met.

III. Continuing Calibration

Continuing calibration frequency and analysis criteria were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total cyanide was found in the initial, continuing and preparation blanks.

No field blanks were identified in this SDG.

V. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Duplicates

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable.

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Total Cyanide - Data Qualification Summary - SDG 481853

No Sample Data Qualified in this SDG

West Van Buren Area
Total Cyanide - Laboratory Blank Data Qualification Summary - SDG 481853

No Sample Data Qualified in this SDG

West Van Buren Area
Total Cyanide - Field Blank Data Qualification Summary - SDG 481853

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB88-0100-25110** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-009 Date Collected: 03.25.14 12.52

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0688**	0.0100	mg/L	04.10.14 12.42		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0672**	0.0100	mg/L	04.10.14 02.57		1

Analytical Method: Total Cyanide by EPA 335.4 Prep Method: E335.4P
Tech: BFO % Moisture:
Analyst: BFO Date Prep: 04.01.14 09.44
Seq Number: 937504 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cyanide, Total	57-12-5	<0.0100	0.0100	mg/L	04.01.14 12.01		1

CR 4/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB125-0100-19125** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-010 Date Collected: 03.25.14 13.28

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.303**	0.0100	mg/L	04.10.14 13.02		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.296**	0.0100	mg/L	04.10.14 03.04		1

Analytical Method: Total Cyanide by EPA 335.4 Prep Method: E335.4P
Tech: BFO % Moisture:
Analyst: BFO Date Prep: 04.01.14 09.44
Seq Number: 937504 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cyanide, Total	57-12-5	<0.0100	0.0100	mg/L	04.01.14 12.02		1

CR 4/21/14

Certificate of Analytical Results 481853

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB69-0200-03114** Matrix: Water Date Received:03.25.14 15.45
Lab Sample Id: 481853-011 Date Collected: 03.25.14 14.05

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.29.14 12.00
Seq Number: 938244 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0122**	0.0100	mg/L	04.10.14 13.08		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 03.31.14 10.30
Seq Number: 938235 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 03.10		1

Analytical Method: Total Cyanide by EPA 335.4 Prep Method: E335.4P
Tech: BFO % Moisture:
Analyst: BFO Date Prep: 04.01.14 09.44
Seq Number: 937504 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cyanide, Total	57-12-5	<0.0100	0.0100	mg/L	04.01.14 12.07		1

CB 4/21/14

LDC #: 31346K6 (6)
SDG #: 481853
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level ~~III~~ IV

Date: 4/17/14
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: (Analyte) Total Cyanide (EPA Method 335.4)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/25/14
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Blanks	A	
V	Matrix Spike/Matrix Spike Duplicates	N	CS
VI.	Duplicates	N	
VII.	Laboratory control samples	A	LCS
VIII.	Sample result verification	A	
IX.	Overall assessment of data	A	
X.	Field duplicates	N	
XI.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	AVB88-010-25110	11		21		31	
2	AVB125-0100-19125	12		22		32	
3	AVB69-0200-03114	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 31646K6

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: [illegible]

Method: Inorganics (EPA Method See cover)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.			✓	
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were ≤ 5X the CRDL.			✓	
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 31646158

VALIDATION FINDINGS CHECKLIST

Reviewer: CL
2nd Reviewer: W

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
X. Field blanks				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

LDC #: 31646R6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of CN was recalculated. Calibration date: 3/27/14

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found X 100 / True

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of analysis	Analyte	Standard	Conc. (mg/L)	Area	Recalculated r or r^2	Reported r or r^2	Acceptable (Y/N)
Initial calibration	CN	s1	0.0	-0.03169	0.99990	0.99990	Y
		s2	0.005	0.2082			
		s3	0.01	0.4172			
		s4	0.05	2.019			
		s5	0.1	3.903			
		s6	0.25	9.552			
Calibration verification		ICV	0.2	0.2044	102	—	
Calibration verification		CCV	0.2	0.2119	106	—	
Calibration verification			0.2	0.2123	106	—	

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31646K8

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: QR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method See cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{Found}{True} \times 100$$

Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$

Where, S = Original sample concentration
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	CN^-	0.196	0.200	98	98	Y
N	Matrix spike sample		(SSR-SR)				
N	Duplicate sample						

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTCLC.6

LDC #: 31646K6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: OR
2nd reviewer: [illegible]

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments?
Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for _____ reported with a positive detect were recalculated and verified using the following equation:

Concentration = Recalculation:

Non Detect

#	Sample ID	Analyte	Reported Concentration ( )	Calculated Concentration ( )	Acceptable (Y/N)

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 26, 2014

LDC Report Date: April 22, 2014

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 481951

Sample Identification

AVB72-0102-1000
AVB72-0100-25127
AVB15-0100-15117
AVB131-0200-01128
AVB116-0100-21134
AVB140-0100-11110
AVB103-0200-13100
AVB103-0201-13100
AVB70-0100-26108
AVB14-0100-36108
AVB143-0100-01124
AVB143-0104-1000
AVB72-0100-25127MS
AVB72-0100-25127MSD

Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB72-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB143-0104-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
653256-LCS/D (All samples in SDG 481951)	Bromomethane	48 (58-138)	-	35 (≤25)	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples AVB103-0200-13100 and AVB103-0201-13100 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB103-0200-13100	AVB103-0201-13100			
Chloroform	1.00	0.980	2 (≤20)	-	-

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481951

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481951	AVB72-0102-1000 AVB72-0100-25127 AVB15-0100-15117 AVB131-0200-01128 AVB116-0100-21134 AVB140-0100-11110 AVB103-0200-13100 AVB103-0201-13100 AVB70-0100-26108 AVB14-0100-36108 AVB143-0100-01124 AVB143-0104-1000	Bromomethane	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)(RPD) (L2, R7)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481951

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481951

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB72-0102-1000** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-001 Date Collected: 03.26.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 12.51		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 12.51		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 12.51		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 12.51		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 12.51		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 12.51		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2, R1)	ug/L	03.31.14 12.51	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 12.51		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 12.51		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 12.51		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 12.51		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 12.51		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 12.51		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 12.51		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 12.51		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 12.51		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.31.14 12.51		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 12.51		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 12.51		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 12.51		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 12.51		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 12.51		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 12.51		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 12.51		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 12.51		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 12.51		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 12.51		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 12.51		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 12.51		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 12.51		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 12.51		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 12.51		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 12.51		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 12.51		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 12.51		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 12.51		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 12.51		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 12.51		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 12.51		1

 Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB72-0102-1000**
Lab Sample Id: 481951-001

Matrix: Water
Date Collected: 03.26.14 08.00

Date Received:03.26.14 15.12

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 12.51		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 12.51		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 12.51		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 12.51		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 12.51		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 12.51		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 12.51		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 12.51		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 12.51		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 12.51		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 12.51		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 12.51		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 12.51		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.31.14 12.51		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 12.51		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 12.51		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 12.51		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 12.51		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 12.51		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.31.14 12.51		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 12.51		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 12.51		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 12.51		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 12.51		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 12.51		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 12.51		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 12.51		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 12.51		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 12.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	03.31.14 12.51	
1,2-Dichloroethane-D4	17060-07-0	95	%	66-139	03.31.14 12.51	
Toluene-D8	2037-26-5	98	%	70-130	03.31.14 12.51	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.31.14 12.51	

Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB72-0100-25127**
Lab Sample Id: 481951-002

Matrix: Water
Date Collected: 03.26.14 08.25

Date Received:03.26.14 15.12

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 13.18		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 13.18		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 13.18		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 13.18		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 13.18		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 13.18		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2, R7)	ug/L	03.31.14 13.18	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 13.18		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 13.18		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 13.18		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 13.18		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 13.18		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 13.18		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 13.18		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 13.18		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 13.18		1
Chloroform	67-66-3	**2.57**	0.500	ug/L	03.31.14 13.18		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 13.18		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 13.18		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 13.18		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 13.18		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 13.18		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 13.18		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 13.18		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 13.18		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 13.18		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 13.18		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 13.18		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 13.18		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 13.18		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 13.18		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 13.18		1
cis-1,2-Dichloroethene	156-59-2	**1.01**	0.500	ug/L	03.31.14 13.18		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 13.18		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 13.18		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 13.18		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 13.18		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 13.18		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 13.18		1

Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB72-0100-25127** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-002 Date Collected: 03.26.14 08.25

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 13.18		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 13.18		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 13.18		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 13.18		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 13.18		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 13.18		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 13.18		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 13.18		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 13.18		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 13.18		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 13.18		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 13.18		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 13.18		1
Tetrachloroethylene	127-18-4	**6.14**	0.500	ug/L	03.31.14 13.18		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 13.18		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 13.18		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 13.18		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 13.18		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 13.18		1
Trichloroethene	79-01-6	**7.02**	0.500	ug/L	03.31.14 13.18		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 13.18		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 13.18		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 13.18		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 13.18		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 13.18		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 13.18		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 13.18		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 13.18		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 13.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	96	%	69-133	03.31.14 13.18	
1,2-Dichloroethane-D4	17060-07-0	95	%	66-139	03.31.14 13.18	
Toluene-D8	2037-26-5	96	%	70-130	03.31.14 13.18	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.31.14 13.18	

C24122/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB15-0100-15117**
Lab Sample Id: 481951-003

Matrix: Water
Date Collected: 03.26.14 09.08

Date Received:03.26.14 15.12

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 13.44		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 13.44		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 13.44		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 13.44		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 13.44		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 13.44		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2,R7)	ug/L	03.31.14 13.44	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 13.44		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 13.44		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 13.44		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 13.44		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 13.44		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 13.44		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 13.44		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 13.44		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 13.44		1
Chloroform	67-66-3	**2.26**	0.500	ug/L	03.31.14 13.44		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 13.44		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 13.44		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 13.44		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 13.44		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 13.44		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 13.44		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 13.44		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 13.44		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 13.44		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 13.44		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 13.44		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 13.44		1
1,1-Dichloroethane	75-34-3	**1.16**	0.500	ug/L	03.31.14 13.44		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 13.44		1
1,1-Dichloroethene	75-35-4	**1.21**	0.500	ug/L	03.31.14 13.44		1
cis-1,2-Dichloroethene	156-59-2	**4.66**	0.500	ug/L	03.31.14 13.44		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 13.44		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 13.44		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 13.44		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 13.44		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 13.44		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 13.44		1

Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB15-0100-15117**
Lab Sample Id: 481951-003

Matrix: Water
Date Collected: 03.26.14 09.08

Date Received:03.26.14 15.12

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 13.44		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 13.44		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 13.44		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 13.44		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 13.44		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 13.44		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 13.44		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 13.44		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 13.44		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 13.44		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 13.44		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 13.44		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 13.44		1
Tetrachloroethylene	127-18-4	**1.80**	0.500	ug/L	03.31.14 13.44		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 13.44		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 13.44		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 13.44		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 13.44		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 13.44		1
Trichloroethene	79-01-6	**27.5**	0.500	ug/L	03.31.14 13.44		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 13.44		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 13.44		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 13.44		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 13.44		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 13.44		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 13.44		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 13.44		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 13.44		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 13.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	69-133	03.31.14 13.44	
1,2-Dichloroethane-D4	17060-07-0	99	%	66-139	03.31.14 13.44	
Toluene-D8	2037-26-5	100	%	70-130	03.31.14 13.44	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.31.14 13.44	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB131-0200-01128**
Lab Sample Id: 481951-004

Matrix: Water
Date Collected: 03.26.14 09.50

Date Received:03.26.14 15.12

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 14.10		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 14.10		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 14.10		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 14.10		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 14.10		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 14.10		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2,R7)	ug/L	03.31.14 14.10	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 14.10		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 14.10		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 14.10		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 14.10		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 14.10		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 14.10		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 14.10		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 14.10		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 14.10		1
Chloroform	67-66-3	**2.91**	0.500	ug/L	03.31.14 14.10		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 14.10		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 14.10		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 14.10		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 14.10		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 14.10		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 14.10		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 14.10		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 14.10		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 14.10		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 14.10		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 14.10		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 14.10		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 14.10		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 14.10		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 14.10		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 14.10		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 14.10		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 14.10		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 14.10		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 14.10		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 14.10		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 14.10		1

Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB131-0200-01128** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-004 Date Collected: 03.26.14 09.50

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 14.10		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 14.10		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 14.10		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 14.10		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 14.10		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 14.10		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 14.10		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 14.10		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 14.10		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 14.10		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 14.10		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 14.10		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 14.10		1
Tetrachloroethylene	127-18-4	**2.04**	0.500	ug/L	03.31.14 14.10		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 14.10		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 14.10		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 14.10		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 14.10		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 14.10		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.31.14 14.10		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 14.10		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 14.10		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 14.10		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 14.10		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 14.10		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 14.10		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 14.10		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 14.10		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 14.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.31.14 14.10	
1,2-Dichloroethane-D4	17060-07-0	100	%	66-139	03.31.14 14.10	
Toluene-D8	2037-26-5	99	%	70-130	03.31.14 14.10	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.31.14 14.10	

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Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0100-21134** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-005 Date Collected: 03.26.14 10.39

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 14.36		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 14.36		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 14.36		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 14.36		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 14.36		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 14.36		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2, R7)	ug/L	03.31.14 14.36	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 14.36		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 14.36		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 14.36		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 14.36		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 14.36		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 14.36		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 14.36		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 14.36		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 14.36		1
Chloroform	67-66-3	**1.58**	0.500	ug/L	03.31.14 14.36		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 14.36		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 14.36		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 14.36		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 14.36		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 14.36		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 14.36		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 14.36		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 14.36		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 14.36		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 14.36		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 14.36		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 14.36		1
1,1-Dichloroethane	75-34-3	**1.01**	0.500	ug/L	03.31.14 14.36		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 14.36		1
1,1-Dichloroethene	75-35-4	**1.17**	0.500	ug/L	03.31.14 14.36		1
cis-1,2-Dichloroethene	156-59-2	**0.910**	0.500	ug/L	03.31.14 14.36		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 14.36		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 14.36		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 14.36		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 14.36		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 14.36		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 14.36		1

Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0100-21134** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-005 Date Collected: 03.26.14 10.39

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 14.36		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 14.36		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 14.36		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 14.36		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 14.36		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 14.36		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 14.36		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 14.36		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 14.36		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 14.36		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 14.36		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 14.36		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 14.36		1
Tetrachloroethylene	127-18-4	**0.900**	0.500	ug/L	03.31.14 14.36		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 14.36		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 14.36		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 14.36		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 14.36		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 14.36		1
Trichloroethene	79-01-6	**4.01**	0.500	ug/L	03.31.14 14.36		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 14.36		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 14.36		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 14.36		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 14.36		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 14.36		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 14.36		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 14.36		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 14.36		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 14.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.31.14 14.36	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	03.31.14 14.36	
Toluene-D8	2037-26-5	99	%	70-130	03.31.14 14.36	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.31.14 14.36	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB140-0100-11110**
Lab Sample Id: 481951-006

Matrix: Water
Date Collected: 03.26.14 11.20

Date Received:03.26.14 15.12

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 15.01		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 15.01		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 15.01		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 15.01		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 15.01		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 15.01		1
Bromomethane	74-83-9	<5.00 US	5.00 (LL2, R7)	ug/L	03.31.14 15.01	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 15.01		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 15.01		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 15.01		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 15.01		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 15.01		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 15.01		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 15.01		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 15.01		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 15.01		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.31.14 15.01		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 15.01		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 15.01		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 15.01		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 15.01		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 15.01		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 15.01		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 15.01		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 15.01		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 15.01		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 15.01		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 15.01		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 15.01		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 15.01		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 15.01		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 15.01		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 15.01		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 15.01		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 15.01		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 15.01		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 15.01		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 15.01		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 15.01		1

Final 1.000

02/12/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB140-0100-11110** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-006 Date Collected: 03.26.14 11.20

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 15.01		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 15.01		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 15.01		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 15.01		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 15.01		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 15.01		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 15.01		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 15.01		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 15.01		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 15.01		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 15.01		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 15.01		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 15.01		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.31.14 15.01		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 15.01		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 15.01		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 15.01		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 15.01		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 15.01		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.31.14 15.01		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 15.01		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 15.01		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 15.01		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 15.01		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 15.01		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 15.01		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 15.01		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 15.01		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 15.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.31.14 15.01	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	03.31.14 15.01	
Toluene-D8	2037-26-5	99	%	70-130	03.31.14 15.01	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.31.14 15.01	

Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB103-0200-13100**
Lab Sample Id: 481951-007

Matrix: Water
Date Collected: 03.26.14 11.50

Date Received:03.26.14 15.12

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 15.27		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 15.27		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 15.27		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 15.27		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 15.27		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 15.27		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2, R7)	ug/L	03.31.14 15.27	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 15.27		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 15.27		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 15.27		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 15.27		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 15.27		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 15.27		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 15.27		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 15.27		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 15.27		1
Chloroform	67-66-3	**1.00**	0.500	ug/L	03.31.14 15.27		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 15.27		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 15.27		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 15.27		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 15.27		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 15.27		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 15.27		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 15.27		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 15.27		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 15.27		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 15.27		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 15.27		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 15.27		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 15.27		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 15.27		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 15.27		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 15.27		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 15.27		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 15.27		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 15.27		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 15.27		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 15.27		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 15.27		1

Final 1.000

02/12/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB103-0200-13100**
Lab Sample Id: 481951-007

Matrix: Water
Date Collected: 03.26.14 11.50

Date Received:03.26.14 15.12

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 15.27		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 15.27		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 15.27		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 15.27		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 15.27		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 15.27		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 15.27		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 15.27		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 15.27		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 15.27		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 15.27		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 15.27		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 15.27		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.31.14 15.27		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 15.27		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 15.27		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 15.27		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 15.27		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 15.27		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.31.14 15.27		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 15.27		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 15.27		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 15.27		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 15.27		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 15.27		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 15.27		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 15.27		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 15.27		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 15.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	69-133	03.31.14 15.27	
1,2-Dichloroethane-D4	17060-07-0	102	%	66-139	03.31.14 15.27	
Toluene-D8	2037-26-5	102	%	70-130	03.31.14 15.27	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.31.14 15.27	

Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB103-0201-13100**
Lab Sample Id: 481951-008

Matrix: Water
Date Collected: 03.26.14 11.55

Date Received:03.26.14 15.12

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 15.52		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 15.52		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 15.52		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 15.52		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 15.52		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 15.52		1
Bromomethane	74-83-9	<5.00 US	5.00 (L2, R7)	ug/L	03.31.14 15.52	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 15.52		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 15.52		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 15.52		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 15.52		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 15.52		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 15.52		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 15.52		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 15.52		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 15.52		1
Chloroform	67-66-3	**0.980**	0.500	ug/L	03.31.14 15.52		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 15.52		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 15.52		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 15.52		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 15.52		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 15.52		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 15.52		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 15.52		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 15.52		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 15.52		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 15.52		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 15.52		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 15.52		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 15.52		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 15.52		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 15.52		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 15.52		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 15.52		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 15.52		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 15.52		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 15.52		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 15.52		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 15.52		1

04/22/14

Final 1.000

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB103-0201-13100**
Lab Sample Id: 481951-008

Matrix: Water
Date Collected: 03.26.14 11.55

Date Received:03.26.14 15.12

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 15.52		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 15.52		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 15.52		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 15.52		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 15.52		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 15.52		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 15.52		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 15.52		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 15.52		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 15.52		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 15.52		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 15.52		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 15.52		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.31.14 15.52		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 15.52		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 15.52		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 15.52		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 15.52		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 15.52		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.31.14 15.52		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 15.52		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 15.52		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 15.52		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 15.52		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 15.52		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 15.52		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 15.52		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 15.52		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 15.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.31.14 15.52	
1,2-Dichloroethane-D4	17060-07-0	100	%	66-139	03.31.14 15.52	
Toluene-D8	2037-26-5	98	%	70-130	03.31.14 15.52	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.31.14 15.52	

Final 1.000

02/02/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB70-0100-26108** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-009 Date Collected: 03.26.14 12.36

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 16.18		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 16.18		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 16.18		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 16.18		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 16.18		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 16.18		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2, R7)	ug/L	03.31.14 16.18	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 16.18		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 16.18		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 16.18		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 16.18		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 16.18		1
Carbon Disulfide	75-15-0	**0.870**	0.500	ug/L	03.31.14 16.18		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 16.18		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 16.18		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 16.18		1
Chloroform	67-66-3	**0.560**	0.500	ug/L	03.31.14 16.18		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 16.18		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 16.18		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 16.18		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 16.18		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 16.18		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 16.18		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 16.18		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 16.18		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 16.18		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 16.18		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 16.18		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 16.18		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 16.18		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 16.18		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 16.18		1
cis-1,2-Dichloroethene	156-59-2	**3.25**	0.500	ug/L	03.31.14 16.18		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 16.18		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 16.18		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 16.18		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 16.18		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 16.18		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 16.18		1

Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB70-0100-26108** Matrix: Water Date Received:03.26.14 15.12

Lab Sample Id: 481951-009 Date Collected: 03.26.14 12.36

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 10.09

Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 16.18		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 16.18		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 16.18		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 16.18		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 16.18		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 16.18		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 16.18		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 16.18		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 16.18		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 16.18		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 16.18		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 16.18		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 16.18		1
Tetrachloroethylene	127-18-4	**7.73**	0.500	ug/L	03.31.14 16.18		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 16.18		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 16.18		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 16.18		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 16.18		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 16.18		1
Trichloroethene	79-01-6	**4.28**	0.500	ug/L	03.31.14 16.18		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 16.18		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 16.18		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 16.18		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 16.18		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 16.18		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 16.18		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 16.18		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 16.18		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 16.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	69-133	03.31.14 16.18	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.31.14 16.18	
Toluene-D8	2037-26-5	100	%	70-130	03.31.14 16.18	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.31.14 16.18	

Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB14-0100-36108** Matrix: Water Date Received:03.26.14 15.12

Lab Sample Id: 481951-010 Date Collected: 03.26.14 13.10

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 10.09

Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 16.44		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 16.44		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 16.44		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 16.44		1
Bromodichloromethane	75-27-4	**0.880**	0.500	ug/L	03.31.14 16.44		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 16.44		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2,R7)	ug/L	03.31.14 16.44	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 16.44		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 16.44		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 16.44		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 16.44		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 16.44		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 16.44		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 16.44		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 16.44		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 16.44		1
Chloroform	67-66-3	**2.81**	0.500	ug/L	03.31.14 16.44		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 16.44		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 16.44		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 16.44		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 16.44		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 16.44		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 16.44		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 16.44		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 16.44		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 16.44		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 16.44		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 16.44		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 16.44		1
1,1-Dichloroethane	75-34-3	**0.870**	0.500	ug/L	03.31.14 16.44		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 16.44		1
1,1-Dichloroethene	75-35-4	**0.940**	0.500	ug/L	03.31.14 16.44		1
cis-1,2-Dichloroethene	156-59-2	**0.780**	0.500	ug/L	03.31.14 16.44		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 16.44		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 16.44		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 16.44		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 16.44		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 16.44		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 16.44		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB14-0100-36108** Matrix: Water Date Received:03.26.14 15.12

Lab Sample Id: 481951-010 Date Collected: 03.26.14 13.10

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 10.09

Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 16.44		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 16.44		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 16.44		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 16.44		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 16.44		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 16.44		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 16.44		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 16.44		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 16.44		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 16.44		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 16.44		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 16.44		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 16.44		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.31.14 16.44		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 16.44		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 16.44		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 16.44		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 16.44		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 16.44		1
Trichloroethene	79-01-6	**4.29**	0.500	ug/L	03.31.14 16.44		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 16.44		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 16.44		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 16.44		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 16.44		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 16.44		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 16.44		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 16.44		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 16.44		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 16.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.31.14 16.44	
1,2-Dichloroethane-D4	17060-07-0	102	%	66-139	03.31.14 16.44	
Toluene-D8	2037-26-5	99	%	70-130	03.31.14 16.44	
4-Bromofluorobenzene	460-00-4	93	%	70-135	03.31.14 16.44	

Final 1.000

CR4/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB143-0100-01124** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-011 Date Collected: 03.26.14 14.02

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 17.10		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 17.10		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 17.10		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 17.10		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 17.10		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 17.10		1
Bromomethane	74-83-9	<5.00 US	5.00 (L2, R7)	ug/L	03.31.14 17.10	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 17.10		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 17.10		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 17.10		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 17.10		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 17.10		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 17.10		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 17.10		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 17.10		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 17.10		1
Chloroform	67-66-3	**0.640**	0.500	ug/L	03.31.14 17.10		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 17.10		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 17.10		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 17.10		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 17.10		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 17.10		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 17.10		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 17.10		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 17.10		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 17.10		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 17.10		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 17.10		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 17.10		1
1,1-Dichloroethane	75-34-3	**0.770**	0.500	ug/L	03.31.14 17.10		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 17.10		1
1,1-Dichloroethene	75-35-4	**0.620**	0.500	ug/L	03.31.14 17.10		1
cis-1,2-Dichloroethene	156-59-2	**9.04**	0.500	ug/L	03.31.14 17.10		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 17.10		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 17.10		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 17.10		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 17.10		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 17.10		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 17.10		1

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB143-0100-01124** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-011 Date Collected: 03.26.14 14.02

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 17.10		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 17.10		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 17.10		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 17.10		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 17.10		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 17.10		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 17.10		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 17.10		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 17.10		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 17.10		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 17.10		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 17.10		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 17.10		1
Tetrachloroethylene	127-18-4	**26.2**	0.500	ug/L	03.31.14 17.10		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 17.10		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 17.10		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 17.10		1
1,1,1-Trichloroethane	71-55-6	**0.740**	0.500	ug/L	03.31.14 17.10		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 17.10		1
Trichloroethene	79-01-6	**6.16**	0.500	ug/L	03.31.14 17.10		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 17.10		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 17.10		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 17.10		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 17.10		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 17.10		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 17.10		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 17.10		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 17.10		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 17.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	69-133	03.31.14 17.10	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.31.14 17.10	
Toluene-D8	2037-26-5	101	%	70-130	03.31.14 17.10	
4-Bromofluorobenzene	460-00-4	97	%	70-135	03.31.14 17.10	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB143-0104-1000** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-012 Date Collected: 03.26.14 14.05

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 17.35		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 17.35		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 17.35		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 17.35		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 17.35		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 17.35		1
Bromomethane	74-83-9	<5.00 US	5.00 (L2,R7)	ug/L	03.31.14 17.35	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 17.35		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 17.35		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 17.35		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 17.35		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 17.35		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 17.35		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 17.35		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 17.35		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 17.35		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.31.14 17.35		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 17.35		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 17.35		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 17.35		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 17.35		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 17.35		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 17.35		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 17.35		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 17.35		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 17.35		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 17.35		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 17.35		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 17.35		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 17.35		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 17.35		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 17.35		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 17.35		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 17.35		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 17.35		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 17.35		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 17.35		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 17.35		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 17.35		1

Final 1.000

04/22/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB143-0104-1000** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-012 Date Collected: 03.26.14 14.05

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 17.35		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 17.35		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 17.35		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 17.35		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 17.35		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 17.35		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 17.35		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 17.35		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 17.35		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 17.35		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 17.35		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 17.35		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 17.35		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.31.14 17.35		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 17.35		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 17.35		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 17.35		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 17.35		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 17.35		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.31.14 17.35		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 17.35		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 17.35		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 17.35		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 17.35		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 17.35		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 17.35		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 17.35		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 17.35		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 17.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	69-133	03.31.14 17.35	
1,2-Dichloroethane-D4	17060-07-0	105	%	66-139	03.31.14 17.35	
Toluene-D8	2037-26-5	99	%	70-130	03.31.14 17.35	
4-Bromofluorobenzene	460-00-4	97	%	70-135	03.31.14 17.35	

Final 1.000

C24/22/14

LDC #: 31346L1a

SDG #: 481951

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/18/14

Page: 1 of 1

Reviewer: F

2nd Reviewer: CR

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/26/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 7 + 8
XVII.	Field blanks	ND	TB = 1 EB = 12

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated ~~Samples~~ Waters:

1	AVB72-0102-1000 TB	11	AVB143-0100-01124	21	653256-1-BLK	31	
2	AVB72-0100-25127	12	AVB143-0104-1000 EB	22		32	
3	AVB15-0100-15117	13	AVB72-0100-25127MS	23		33	
4	AVB131-0200-01128	14	AVB72-0100-25127MSD	24		34	
5	AVB116-0100-21134	15		25		35	
6	AVB140-0100-11110	16		26		36	
7	AVB103-0200-13100 D	17		27		37	
8	AVB103-0201-13100 D	18		28		38	
9	AVB70-0100-26108	19		29		39	
10	AVB14-0100-36108	20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC #: 31646|a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	653256-LCS/D	B	48 (58-138)	( )	35 (25)	All	J/UJ/P (L2, R7)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 31646l1a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD (≤ 20 %)	Qualifications (Parent only)
	7	8		
K	1.00	0.980	2	

Compound	Concentration ( )		RPD (≤ %	Qualifications (Parent only)

Compound	Concentration ( )		RPD (≤ %	Qualifications (Parent only)

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 26, 2014
LDC Report Date:	April 22, 2014
Matrix:	Water
Parameters:	Polychlorinated Biphenyls
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481951

Sample Identification

AVB116-0100-21134

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC Instrument Performance Check

Instrument performance was not required by the method.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not reviewed in this SDG.

XI. GPC Calibration

GPC cleanup was not reviewed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Polychlorinated Biphenyls - Data Qualification Summary - SDG 481951

No Sample Data Qualified in this SDG

West Van Buren Area
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 481951

No Sample Data Qualified in this SDG

West Van Buren Area
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 481951

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0100-21134**
Lab Sample Id: 481951-005

Matrix: Water
Date Collected: 03.26.14 10.39

Date Received:03.26.14 15.12

Analytical Method: PCBs by SW 8082
Tech: PJB
Analyst: KKO
Seq Number: 937804

Date Prep: 03.28.14 17.30

Prep Method: SW3510C
% Moisture:

SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
PCB-1016	12674-11-2	<0.521	0.521	ug/L	04.03.14 06.23		1.04
PCB-1221	11104-28-2	<0.521	0.521	ug/L	04.03.14 06.23		1.04
PCB-1232	11141-16-5	<0.521	0.521	ug/L	04.03.14 06.23		1.04
PCB-1242	53469-21-9	<0.521	0.521	ug/L	04.03.14 06.23		1.04
PCB-1248	12672-29-6	<0.521	0.521	ug/L	04.03.14 06.23		1.04
PCB-1254	11097-69-1	<0.521	0.521	ug/L	04.03.14 06.23		1.04
PCB-1260	11096-82-5	<0.521	0.521	ug/L	04.03.14 06.23		1.04
PCB-1262	37324-23-5	<0.521	0.521	ug/L	04.03.14 06.23		1.04
PCB-1268	11100-14-4	<0.521	0.521	ug/L	04.03.14 06.23		1.04

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tetrachloro-m-xylene	877-09-8	60	%	50-125	04.03.14 06.23	
Decachlorobiphenyl	2051-24-3	92	%	45-162	04.03.14 06.23	

04/22/14

Final 1.000

LDC #: 31346L3b

SDG #: 481951

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/18/14

Page: 1 of 1

Reviewer:

2nd Reviewer:

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/26/14
II.	GC Instrument Performance Check	NA	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specific
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	N	
XIII.	Compound quantitation/RL/LOQ/LODs	N	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	AVB116-0100-21134	11	653114-1-BLK	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 26, 2014

LDC Report Date: April 23, 2014

Matrix: Water

Parameters: Chromium

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 481951

Sample Identification

AVB72-0100-25127
AVB15-0100-15117
AVB131-0200-01128
AVB116-0100-21134
AVB140-0100-11110
AVB103-0200-13100
AVB103-0201-13100
AVB70-0100-26108
AVB14-0100-36108
AVB143-0100-01124
AVB143-0104-1000
AVB72-0100-25127F
AVB15-0100-15117F
AVB131-0200-01128F
AVB116-0100-21134F
AVB140-0100-11110F
AVB103-0200-13100F
AVB103-0201-13100F
AVB70-0100-26108F
AVB14-0100-36108F
AVB143-0100-01124F
AVB143-0104-1000F
AVB72-0100-25127MS
AVB72-0100-25127MSD

Sample IDs appended with "F" were analyzed for dissolved chromium.

Introduction

This data review covers 24 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Chromium.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Level III.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No chromium was found in the preparation blanks.

Samples AVB143-0104-1000 and AVB143-0104-1000F were identified as equipment blanks. No chromium was found.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for Level III.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

IX. Sample Result Verification

Raw data was not reviewed for this SDG.

X. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XI. Field Duplicates

Samples AVB103-0200-13100 and AVB103-0201-13100 and AVB103-0200-13100F and AVB103-0201-13100F were identified as field duplicates. No chromium was detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
	AVB103-0200-13100	AVB103-0201-13100			
Chromium	0.0233	0.0299	25 (≤20)	J (all detects)	A

West Van Buren Area
Chromium - Data Qualification Summary - SDG 481951

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
481951	AVB103-0200-13100 AVB103-0201-13100	Chromium	J (all detects)	A	Field duplicates (RPD) (R8)

West Van Buren Area
Chromium - Laboratory Blank Data Qualification Summary - SDG 481951

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Field Blank Data Qualification Summary - SDG 481951

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB72-0100-25127** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-002 Date Collected: 03.26.14 08.25

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**3.68**	0.0100	mg/L	04.10.14 07.07		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 02.53		1

CR 4/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB15-0100-15117** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-003 Date Collected: 03.26.14 09.08

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.164**	0.0100	mg/L	04.10.14 07.39		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 03.00		1

04/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB131-0200-01128** Matrix: Water Date Received:03.26.14 15.12

Lab Sample Id: 481951-004 Date Collected: 03.26.14 09.50

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 04.02.14 11.10

Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0234**	0.0100	mg/L	04.10.14 07.46		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 04.02.14 11.00

Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 03.19		1

CR 4/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0100-21134** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-005 Date Collected: 03.26.14 10.39

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0118**	0.0100	mg/L	04.10.14 08.05		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 03.26		1

Analytical Method: Chromium Hexavalent by SM 3500 Cr-D
Tech: RYR % Moisture:
Analyst: RYR
Seq Number: 937131

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium, Hexavalent	18540-29-9	<0.00500	0.00500	mg/L	03.26.14 16.08		1

02 4/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB140-0100-11110** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-006 Date Collected: 03.26.14 11.20

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 08.12		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 03.32		1

Analytical Method: Total Cyanide by EPA 335.4 Prep Method: E335.4P
Tech: BFO % Moisture:
Analyst: BFO Date Prep: 04.01.14 09.44
Seq Number: 937504 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cyanide, Total	57-12-5	<0.0100	0.0100	mg/L	04.01.14 12.14		1

CR 4/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB103-0200-13100** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-007 Date Collected: 03.26.14 11.50

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0233** J	0.0100 (RB)	mg/L	04.10.14 08.18		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 03.38		1

C24/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB103-0201-13100** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-008 Date Collected: 03.26.14 11.55

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0299** J	0.0100 (R8)	mg/L	04.10.14 08.25		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 03.45		1

CR 4/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB70-0100-26108** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-009 Date Collected: 03.26.14 12.36

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**3.61**	0.0100	mg/L	04.10.14 08.31		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 03.51		1

024/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB14-0100-36108** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-010 Date Collected: 03.26.14 13.10

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0325**	0.0100	mg/L	04.10.14 08.38		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 03.58		1

04/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB143-0100-01124** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-011 Date Collected: 03.26.14 14.02

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0199**	0.0100	mg/L	04.10.14 08.44		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 04.04		1

CZ 4/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB143-0104-1000** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-012 Date Collected: 03.26.14 14.05

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 08.51		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 04.11		1

CL 4/23/14

LDC #: 31346L4 (6)
SDG #: 481951
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/14
Page: 1 of 1
Reviewer: a
2nd Reviewer: ✓

METHOD: Chromium (EPA SW846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/26/14
II.	Calibration	N	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Matrix Spike Analysis	A	MS/D
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS/D
VIII.	~~Internal Standard (ICP-MS)~~	N	
IX.	ICP Serial Dilution	N	
X.	Sample Result Verification	N	
XI.	Overall Assessment of Data	A	
XII.	Field Duplicates	SW	(6,7) (17,18)
XIII.	Field Blanks	ND	EB=11,22

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB72-0100-25127	11	AVB143-0104-1000	21	AVB143-0100-01124F	11	
2	AVB15-0100-15117	12	AVB72-0100-25127F	22	AVB143-0104-1000F	12	
3	AVB131-0200-01128	13	AVB15-0100-15117F	23	AVB72-0100-25127MS	13	
4	AVB116-0100-21134	14	AVB131-0200-01128F	24	AVB72-0100-25127MSD	14	
5	AVB140-0100-11110	15	AVB116-0100-21134F	25		15	
6	AVB103-0200-13100	16	AVB140-0100-11110F	26		16	
7	AVB103-0201-13100	17	AVB103-0200-13100F	27		17	
8	AVB70-0100-26108	18	AVB103-0201-13100F	28		18	
9	AVB14-0100-36108	19	AVB70-0100-26108F	29		19	
10	AVB143-0100-01124	20	AVB14-0100-36108F	30		20	

Notes: Samples appended with "F" were analyzed for dissolved chromium

LDC#: 31646L4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: a
2nd Reviewer: [illegible]

METHOD: Metals (EPA Method 6010B)

Analyte	Concentration (mg/L)		RPD (≤20)	Qualifiers (Parents Only)
	6	7		
Chromium	0.0233	0.0299	25	Jdet/A (R8)

\\LDCFILESERVER\Validation\FIELD DUPLICATES\FD_inorganic\31646L4.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 26, 2014
LDC Report Date:	April 23, 2014
Matrix:	Water
Parameters:	Wet Chemistry
Validation Level:	Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481951

Sample Identification

AVB116-0100-21134
AVB140-0100-11110
AVB116-0100-21134MS
AVB116-0100-21134MSD

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 335.4 for Total Cyanide and Standard Method 3500 CR-D for Hexavalent Chromium.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration data were not reviewed for Level III.

III. Calibration verification

Calibration verification data were not reviewed for Level III.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the preparation blanks.

No field blanks were identified in this SDG.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicates

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Sample Result Verification

Raw data were not reviewed for this SDG.

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Wet Chemistry - Data Qualification Summary - SDG 481951

No Sample Data Qualified in this SDG

West Van Buren Area
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 481951

No Sample Data Qualified in this SDG

West Van Buren Area
Wet Chemistry - Field Blank Data Qualification Summary - SDG 481951

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0100-21134** Matrix: Water Date Received:03.25.14 15.12
Lab Sample Id: 481951-005 Date Collected: 03.26.14 10.39

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0118**	0.0100	mg/L	04.10.14 08.05		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 03.26		1

Analytical Method: Chromium Hexavalent by SM 3500 Cr-D
Tech: RYR % Moisture:
Analyst: RYR
Seq Number: 937131

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium, Hexavalent	18540-29-9	<0.00500	0.00500	mg/L	03.26.14 16.08		1

ar 4/23/14

Certificate of Analytical Results 481951

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB140-0100-11110** Matrix: Water Date Received:03.26.14 15.12
Lab Sample Id: 481951-006 Date Collected: 03.26.14 11.20

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 08.12		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 03.32		1

Analytical Method: Total Cyanide by EPA 335.4 Prep Method: E335.4P
Tech: BFO % Moisture:
Analyst: BFO Date Prep: 04.01.14 09.44
Seq Number: 937504 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cyanide, Total	57-12-5	<0.0100	0.0100	mg/L	04.01.14 12.14		1

02/4/23/14

LDC #: 31346L6 **VALIDATION COMPLETENESS WORKSHEET** Date: 4/17/14
SDG #: 481951 Level III Page: 1 of 1
Laboratory: Xenco Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: (Analyte) Total Cyanide (EPA Method 335.4), Hexavalent Chromium (SM3500Cr-D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/26/14
II	Initial calibration	N	
III.	Calibration verification	N	
IV	Blanks	A	
V	Matrix Spike/Matrix Spike Duplicates	A	MS/D
VI.	Duplicates	N	
VII.	Laboratory control samples	A	LCS/D
VIII.	Sample result verification	N	
IX.	Overall assessment of data	A	
X.	Field duplicates	N	
XI.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: water

1	AVB116-0100-21134	11		21		31	
2	AVB140-0100-11110	12		22		32	
3	AVB116-0100-21134MS	13		23		33	
4	AVB116-0100-21134MSD	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 30346L6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CR
2nd reviewer:

All circled methods are applicable to each sample.

Sample ID	Parameter
1	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
2	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
QC 3,4	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4

Comments:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 27, 2014

LDC Report Date: April 22, 2014

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 482071

Sample Identification

AVB108-0102-1000
AVB108-0100-20139
AVB112-0500-14156
PS-9
PS-9D
PS-7
PS-6
AVB126-0100-15128
AVB26-0101-16100
AVB26-0100-16100
AVB26-0104-1000
AVB126-0100-15128MS
AVB126-0100-15128MSD

Introduction

This data review covers 13 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB108-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB26-0104-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
653256-LCS/D (AVB108-0102-1000 AVB108-0100-20139 AVB112-0500-14156 PS-9 PS-9D PS-7 PS-6 653256-1-BLK)	Bromomethane	48 (58-138)	-	35 (≤25)	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples AVB26-0101-16100 and AVB26-0100-16100 and samples PS-9 and PS-9D were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB26-0101-16100	AVB26-0100-16100			
Chloroform	0.730	0.700	4 (≤20)	-	-
Tetrachloroethene	1.49	0.990	40 (≤20)	J (all detects)	A
Trichloroethene	0.710	0.50U	35 (≤20)	J (all detects) UJ (all non-detects)	A

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	PS-9	PS-9D			
Chloroform	16.3	16.0	2 (≤20)	-	-
Tetrachloroethene	2.48	2.43	2 (≤20)	-	-
Trichloroethene	5.75	5.46	5 (≤20)	-	-

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 482071

SDG	Sample	Compound	Flag	A or P	Reason (Code)
482071	AVB108-0102-1000 AVB108-0100-20139 AVB112-0500-14156 PS-9 PS-9D PS-7 PS-6	Bromomethane	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)(RPD) (L2, R7)
482071	AVB26-0101-16100 AVB26-0100-16100	Tetrachloroethene	J (all detects)	A	Field duplicates (RPD) (R8)
482071	AVB26-0101-16100 AVB26-0100-16100	Trichloroethene	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (R8)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 482071

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 482071

No Sample Data Qualified in this SDG

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB108-0102-1000** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-001 Date Collected: 03.27.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 18.01		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 18.01		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 18.01		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 18.01		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 18.01		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 18.01		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2,R7)	ug/L	03.31.14 18.01	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 18.01		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 18.01		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 18.01		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 18.01		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 18.01		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 18.01		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 18.01		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 18.01		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 18.01		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.31.14 18.01		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 18.01		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 18.01		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 18.01		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 18.01		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 18.01		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 18.01		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 18.01		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 18.01		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 18.01		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 18.01		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 18.01		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 18.01		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 18.01		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 18.01		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 18.01		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 18.01		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 18.01		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 18.01		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 18.01		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 18.01		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 18.01		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 18.01		1

Final 1.000 04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB108-0102-1000** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-001 Date Collected: 03.27.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 18.01		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 18.01		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 18.01		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 18.01		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 18.01		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 18.01		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 18.01		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 18.01		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 18.01		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 18.01		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 18.01		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 18.01		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 18.01		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.31.14 18.01		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 18.01		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 18.01		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 18.01		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 18.01		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 18.01		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.31.14 18.01		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 18.01		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 18.01		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 18.01		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 18.01		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 18.01		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 18.01		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 18.01		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 18.01		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 18.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	69-133	03.31.14 18.01	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.31.14 18.01	
Toluene-D8	2037-26-5	102	%	70-130	03.31.14 18.01	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.31.14 18.01	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB108-0100-20139**
Lab Sample Id: 482071-002

Matrix: Water
Date Collected: 03.27.14 09.40

Date Received:03.27.14 16.47

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 18.27		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 18.27		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 18.27		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 18.27		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 18.27		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 18.27		1
Bromomethane	74-83-9	<5.00 U5	5.00 (L2,R7)	ug/L	03.31.14 18.27	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 18.27		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 18.27		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 18.27		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 18.27		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 18.27		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 18.27		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 18.27		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 18.27		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 18.27		1
Chloroform	67-66-3	**3.91**	0.500	ug/L	03.31.14 18.27		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 18.27		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 18.27		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 18.27		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 18.27		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 18.27		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 18.27		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 18.27		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 18.27		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 18.27		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 18.27		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 18.27		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 18.27		1
1,1-Dichloroethane	75-34-3	**0.520**	0.500	ug/L	03.31.14 18.27		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 18.27		1
1,1-Dichloroethene	75-35-4	**1.03**	0.500	ug/L	03.31.14 18.27		1
cis-1,2-Dichloroethene	156-59-2	**0.620**	0.500	ug/L	03.31.14 18.27		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 18.27		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 18.27		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 18.27		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 18.27		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 18.27		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 18.27		1

Final 1.000

04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB108-0100-20139** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-002 Date Collected: 03.27.14 09.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 18.27		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 18.27		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 18.27		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 18.27		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 18.27		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 18.27		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 18.27		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 18.27		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 18.27		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 18.27		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 18.27		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 18.27		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 18.27		1
Tetrachloroethylene	127-18-4	**10.7**	0.500	ug/L	03.31.14 18.27		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 18.27		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 18.27		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 18.27		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 18.27		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 18.27		1
Trichloroethene	79-01-6	**9.75**	0.500	ug/L	03.31.14 18.27		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 18.27		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 18.27		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 18.27		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 18.27		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 18.27		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 18.27		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 18.27		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 18.27		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 18.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	69-133	03.31.14 18.27	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.31.14 18.27	
Toluene-D8	2037-26-5	100	%	70-130	03.31.14 18.27	
4-Bromofluorobenzene	460-00-4	97	%	70-135	03.31.14 18.27	

04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB112-0500-14156** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-003 Date Collected: 03.27.14 11.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 10.09

Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 18.52		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 18.52		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 18.52		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 18.52		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 18.52		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 18.52		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2, R7)	ug/L	03.31.14 18.52	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 18.52		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 18.52		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 18.52		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 18.52		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 18.52		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 18.52		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 18.52		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 18.52		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 18.52		1
Chloroform	67-66-3	**0.680**	0.500	ug/L	03.31.14 18.52		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 18.52		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 18.52		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 18.52		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 18.52		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 18.52		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 18.52		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 18.52		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 18.52		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 18.52		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 18.52		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 18.52		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 18.52		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 18.52		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 18.52		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 18.52		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 18.52		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 18.52		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 18.52		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 18.52		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 18.52		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 18.52		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 18.52		1

Final 1.000

04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB112-0500-14156** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-003 Date Collected: 03.27.14 11.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 10.09

Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 18.52		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 18.52		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 18.52		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 18.52		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 18.52		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 18.52		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 18.52		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 18.52		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 18.52		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 18.52		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 18.52		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 18.52		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 18.52		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.31.14 18.52		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 18.52		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 18.52		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 18.52		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 18.52		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 18.52		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.31.14 18.52		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 18.52		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 18.52		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 18.52		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 18.52		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 18.52		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 18.52		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 18.52		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 18.52		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 18.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	69-133	03.31.14 18.52	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.31.14 18.52	
Toluene-D8	2037-26-5	100	%	70-130	03.31.14 18.52	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.31.14 18.52	

04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-9**
Lab Sample Id: 482071-004

Matrix: Water
Date Collected: 03.27.14 12.35

Date Received:03.27.14 16.47

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 20.09		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 20.09		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 20.09		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 20.09		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 20.09		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 20.09		1
Bromomethane	74-83-9	<5.00 U5	5.00 (L2,R7)	ug/L	03.31.14 20.09	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 20.09		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 20.09		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 20.09		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 20.09		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 20.09		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 20.09		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 20.09		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 20.09		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 20.09		1
Chloroform	67-66-3	**16.3**	0.500	ug/L	03.31.14 20.09		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 20.09		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 20.09		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 20.09		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 20.09		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 20.09		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 20.09		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 20.09		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 20.09		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 20.09		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 20.09		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 20.09		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 20.09		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 20.09		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 20.09		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 20.09		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 20.09		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 20.09		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 20.09		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 20.09		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 20.09		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 20.09		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 20.09		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-9** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-004 Date Collected: 03.27.14 12.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 20.09		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 20.09		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 20.09		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 20.09		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 20.09		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 20.09		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 20.09		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 20.09		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 20.09		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 20.09		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 20.09		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 20.09		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 20.09		1
Tetrachloroethylene	127-18-4	**2.48**	0.500	ug/L	03.31.14 20.09		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 20.09		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 20.09		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 20.09		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 20.09		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 20.09		1
Trichloroethene	79-01-6	**5.75**	0.500	ug/L	03.31.14 20.09		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 20.09		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 20.09		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 20.09		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 20.09		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 20.09		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 20.09		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 20.09		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 20.09		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 20.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	96	%	69-133	03.31.14 20.09	
1,2-Dichloroethane-D4	17060-07-0	98	%	66-139	03.31.14 20.09	
Toluene-D8	2037-26-5	97	%	70-130	03.31.14 20.09	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.31.14 20.09	

CR 4/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-9D** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-005 Date Collected: 03.27.14 12.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 10.09

Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 20.35		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 20.35		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 20.35		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 20.35		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 20.35		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 20.35		1
Bromomethane	74-83-9	<5.00 US	5.00 (L2,R1)	ug/L	03.31.14 20.35	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 20.35		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 20.35		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 20.35		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 20.35		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 20.35		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 20.35		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 20.35		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 20.35		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 20.35		1
Chloroform	67-66-3	**16.0**	0.500	ug/L	03.31.14 20.35		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 20.35		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 20.35		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 20.35		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 20.35		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 20.35		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 20.35		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 20.35		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 20.35		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 20.35		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 20.35		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 20.35		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 20.35		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 20.35		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 20.35		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 20.35		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 20.35		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 20.35		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 20.35		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 20.35		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 20.35		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 20.35		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 20.35		1

Final 1.000

04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-9D** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-005 Date Collected: 03.27.14 12.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 10.09
Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 20.35		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 20.35		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 20.35		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 20.35		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 20.35		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 20.35		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 20.35		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 20.35		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 20.35		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 20.35		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 20.35		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 20.35		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 20.35		1
Tetrachloroethylene	127-18-4	**2.43**	0.500	ug/L	03.31.14 20.35		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 20.35		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 20.35		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 20.35		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 20.35		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 20.35		1
Trichloroethene	79-01-6	**5.46**	0.500	ug/L	03.31.14 20.35		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 20.35		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 20.35		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 20.35		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 20.35		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 20.35		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 20.35		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 20.35		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 20.35		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 20.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	03.31.14 20.35	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	03.31.14 20.35	
Toluene-D8	2037-26-5	100	%	70-130	03.31.14 20.35	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.31.14 20.35	

C24122/4

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-7**
Lab Sample Id: 482071-006

Matrix: Water
Date Collected: 03.27.14 13.18

Date Received:03.27.14 16.47

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 21.01		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 21.01		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 21.01		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 21.01		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.31.14 21.01		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 21.01		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (L2,R7)	ug/L	03.31.14 21.01	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 21.01		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 21.01		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 21.01		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 21.01		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 21.01		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 21.01		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 21.01		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 21.01		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 21.01		1
Chloroform	67-66-3	**3.76**	0.500	ug/L	03.31.14 21.01		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 21.01		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 21.01		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 21.01		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 21.01		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 21.01		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 21.01		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 21.01		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 21.01		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 21.01		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 21.01		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 21.01		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 21.01		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.31.14 21.01		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 21.01		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 21.01		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.31.14 21.01		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 21.01		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 21.01		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 21.01		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 21.01		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 21.01		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 21.01		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-7** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-006 Date Collected: 03.27.14 13.18

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 10.09

Seq Number: 937524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 21.01		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 21.01		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 21.01		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 21.01		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 21.01		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 21.01		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 21.01		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 21.01		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 21.01		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 21.01		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 21.01		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 21.01		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 21.01		1
Tetrachloroethylene	127-18-4	**1.62**	0.500	ug/L	03.31.14 21.01		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 21.01		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 21.01		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 21.01		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 21.01		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 21.01		1
Trichloroethene	79-01-6	**1.58**	0.500	ug/L	03.31.14 21.01		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 21.01		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 21.01		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 21.01		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 21.01		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 21.01		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 21.01		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 21.01		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 21.01		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 21.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	03.31.14 21.01	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.31.14 21.01	
Toluene-D8	2037-26-5	100	%	70-130	03.31.14 21.01	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.31.14 21.01	

02/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-6**
Lab Sample Id: 482071-007

Matrix: Water
Date Collected: 03.27.14 14.15

Date Received:03.27.14 16.47

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.31.14 21.26		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.31.14 21.26		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.31.14 21.26		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.31.14 21.26		1
Bromodichloromethane	75-27-4	**0.530**	0.500	ug/L	03.31.14 21.26		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.31.14 21.26		1
Bromomethane	74-83-9	<5.00	U5 5.00 (L2,R7)	ug/L	03.31.14 21.26	L2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.31.14 21.26		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.31.14 21.26		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.31.14 21.26		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.31.14 21.26		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.31.14 21.26		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.31.14 21.26		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.31.14 21.26		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.31.14 21.26		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.31.14 21.26		1
Chloroform	67-66-3	**4.42**	0.500	ug/L	03.31.14 21.26		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.31.14 21.26		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.31.14 21.26		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.31.14 21.26		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.31.14 21.26		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.31.14 21.26		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.31.14 21.26		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.31.14 21.26		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.31.14 21.26		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.31.14 21.26		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.31.14 21.26		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.31.14 21.26		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.31.14 21.26		1
1,1-Dichloroethane	75-34-3	**0.590**	0.500	ug/L	03.31.14 21.26		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.31.14 21.26		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.31.14 21.26		1
cis-1,2-Dichloroethene	156-59-2	**0.590**	0.500	ug/L	03.31.14 21.26		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.31.14 21.26		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.31.14 21.26		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.31.14 21.26		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.31.14 21.26		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.31.14 21.26		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.31.14 21.26		1

Final 1.000

CEY 4/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-6**
Lab Sample Id: 482071-007

Matrix: Water
Date Collected: 03.27.14 14.15

Date Received:03.27.14 16.47

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937524

Date Prep: 03.31.14 10.09

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.31.14 21.26		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.31.14 21.26		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.31.14 21.26		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.31.14 21.26		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.31.14 21.26		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.31.14 21.26		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.31.14 21.26		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.31.14 21.26		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.31.14 21.26		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.31.14 21.26		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.31.14 21.26		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.31.14 21.26		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.31.14 21.26		1
Tetrachloroethylene	127-18-4	**3.10**	0.500	ug/L	03.31.14 21.26		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.31.14 21.26		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.31.14 21.26		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.31.14 21.26		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.31.14 21.26		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.31.14 21.26		1
Trichloroethene	79-01-6	**9.95**	0.500	ug/L	03.31.14 21.26		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.31.14 21.26		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.31.14 21.26		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.31.14 21.26		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.31.14 21.26		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.31.14 21.26		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.31.14 21.26		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.31.14 21.26		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.31.14 21.26		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.31.14 21.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	03.31.14 21.26	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.31.14 21.26	
Toluene-D8	2037-26-5	100	%	70-130	03.31.14 21.26	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.31.14 21.26	

Final 1.000

04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0100-15128** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-008 Date Collected: 03.27.14 14.55

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 21.52

Seq Number: 937532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	04.01.14 00.01		1
Benzene	71-43-2	<0.500	0.500	ug/L	04.01.14 00.01		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	04.01.14 00.01		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	04.01.14 00.01		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	04.01.14 00.01		1
Bromoform	75-25-2	<1.00	1.00	ug/L	04.01.14 00.01		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	04.01.14 00.01		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	04.01.14 00.01		1
MTBE	1634-04-4	<2.00	2.00	ug/L	04.01.14 00.01		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	04.01.14 00.01		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	04.01.14 00.01		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	04.01.14 00.01		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	04.01.14 00.01		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	04.01.14 00.01		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	04.01.14 00.01		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	04.01.14 00.01		1
Chloroform	67-66-3	**1.04**	0.500	ug/L	04.01.14 00.01		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	04.01.14 00.01		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	04.01.14 00.01		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	04.01.14 00.01		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	04.01.14 00.01		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	04.01.14 00.01		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	04.01.14 00.01		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	04.01.14 00.01		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	04.01.14 00.01		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	04.01.14 00.01		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	04.01.14 00.01		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	04.01.14 00.01		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	04.01.14 00.01		1
1,1-Dichloroethane	75-34-3	**0.730**	0.500	ug/L	04.01.14 00.01		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	04.01.14 00.01		1
1,1-Dichloroethene	75-35-4	**1.07**	0.500	ug/L	04.01.14 00.01		1
cis-1,2-Dichloroethene	156-59-2	**2.66**	0.500	ug/L	04.01.14 00.01		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	04.01.14 00.01		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	04.01.14 00.01		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	04.01.14 00.01		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	04.01.14 00.01		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	04.01.14 00.01		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	04.01.14 00.01		1

Final 1.000 04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0100-15128** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-008 Date Collected: 03.27.14 14.55

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 21.52

Seq Number: 937532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	04.01.14 00.01		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	04.01.14 00.01		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	04.01.14 00.01		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	04.01.14 00.01		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	04.01.14 00.01		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	04.01.14 00.01		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	04.01.14 00.01		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	04.01.14 00.01		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	04.01.14 00.01		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	04.01.14 00.01		1
Styrene	100-42-5	<1.00	1.00	ug/L	04.01.14 00.01		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	04.01.14 00.01		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	04.01.14 00.01		1
Tetrachloroethylene	127-18-4	**6.26**	0.500	ug/L	04.01.14 00.01		1
Toluene	108-88-3	<2.00	2.00	ug/L	04.01.14 00.01		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	04.01.14 00.01		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	04.01.14 00.01		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	04.01.14 00.01		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	04.01.14 00.01		1
Trichloroethene	79-01-6	**5.99**	0.500	ug/L	04.01.14 00.01		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	04.01.14 00.01		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	04.01.14 00.01		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	04.01.14 00.01		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	04.01.14 00.01		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	04.01.14 00.01		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	04.01.14 00.01		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	04.01.14 00.01		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	04.01.14 00.01		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	04.01.14 00.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	04.01.14 00.01	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	04.01.14 00.01	
Toluene-D8	2037-26-5	102	%	70-130	04.01.14 00.01	
4-Bromofluorobenzene	460-00-4	97	%	70-135	04.01.14 00.01	

Final 1.000

04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB26-0101-16100** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-009 Date Collected: 03.27.14 15.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 21.52
Seq Number: 937532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	04.01.14 00.26		1
Benzene	71-43-2	<0.500	0.500	ug/L	04.01.14 00.26		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	04.01.14 00.26		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	04.01.14 00.26		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	04.01.14 00.26		1
Bromoform	75-25-2	<1.00	1.00	ug/L	04.01.14 00.26		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	04.01.14 00.26		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	04.01.14 00.26		1
MTBE	1634-04-4	<2.00	2.00	ug/L	04.01.14 00.26		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	04.01.14 00.26		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	04.01.14 00.26		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	04.01.14 00.26		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	04.01.14 00.26		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	04.01.14 00.26		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	04.01.14 00.26		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	04.01.14 00.26		1
Chloroform	67-66-3	**0.730**	0.500	ug/L	04.01.14 00.26		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	04.01.14 00.26		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	04.01.14 00.26		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	04.01.14 00.26		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	04.01.14 00.26		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	04.01.14 00.26		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	04.01.14 00.26		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	04.01.14 00.26		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	04.01.14 00.26		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	04.01.14 00.26		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	04.01.14 00.26		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	04.01.14 00.26		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	04.01.14 00.26		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	04.01.14 00.26		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	04.01.14 00.26		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	04.01.14 00.26		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	04.01.14 00.26		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	04.01.14 00.26		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	04.01.14 00.26		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	04.01.14 00.26		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	04.01.14 00.26		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	04.01.14 00.26		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	04.01.14 00.26		1

Final 1.000

04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB26-0101-16100** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-009 Date Collected: 03.27.14 15.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 21.52
Seq Number: 937532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	04.01.14 00.26		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	04.01.14 00.26		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	04.01.14 00.26		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	04.01.14 00.26		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	04.01.14 00.26		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	04.01.14 00.26		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	04.01.14 00.26		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	04.01.14 00.26		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	04.01.14 00.26		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	04.01.14 00.26		1
Styrene	100-42-5	<1.00	1.00	ug/L	04.01.14 00.26		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	04.01.14 00.26		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	04.01.14 00.26		1
Tetrachloroethylene	127-18-4	**1.49** J	0.500 (RB)	ug/L	04.01.14 00.26		1
Toluene	108-88-3	<2.00	2.00	ug/L	04.01.14 00.26		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	04.01.14 00.26		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	04.01.14 00.26		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	04.01.14 00.26		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	04.01.14 00.26		1
Trichloroethene	79-01-6	**0.710** J	0.500 (RB)	ug/L	04.01.14 00.26		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	04.01.14 00.26		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	04.01.14 00.26		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	04.01.14 00.26		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	04.01.14 00.26		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	04.01.14 00.26		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	04.01.14 00.26		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	04.01.14 00.26		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	04.01.14 00.26		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	04.01.14 00.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	04.01.14 00.26	
1,2-Dichloroethane-D4	17060-07-0	100	%	66-139	04.01.14 00.26	
Toluene-D8	2037-26-5	99	%	70-130	04.01.14 00.26	
4-Bromofluorobenzene	460-00-4	94	%	70-135	04.01.14 00.26	

02/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB26-0100-16100** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-010 Date Collected: 03.27.14 15.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 21.52

Seq Number: 937532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	04.01.14 00.52		1
Benzene	71-43-2	<0.500	0.500	ug/L	04.01.14 00.52		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	04.01.14 00.52		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	04.01.14 00.52		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	04.01.14 00.52		1
Bromoform	75-25-2	<1.00	1.00	ug/L	04.01.14 00.52		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	04.01.14 00.52		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	04.01.14 00.52		1
MTBE	1634-04-4	<2.00	2.00	ug/L	04.01.14 00.52		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	04.01.14 00.52		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	04.01.14 00.52		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	04.01.14 00.52		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	04.01.14 00.52		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	04.01.14 00.52		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	04.01.14 00.52		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	04.01.14 00.52		1
Chloroform	67-66-3	**0.700**	0.500	ug/L	04.01.14 00.52		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	04.01.14 00.52		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	04.01.14 00.52		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	04.01.14 00.52		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	04.01.14 00.52		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	04.01.14 00.52		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	04.01.14 00.52		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	04.01.14 00.52		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	04.01.14 00.52		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	04.01.14 00.52		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	04.01.14 00.52		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	04.01.14 00.52		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	04.01.14 00.52		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	04.01.14 00.52		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	04.01.14 00.52		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	04.01.14 00.52		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	04.01.14 00.52		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	04.01.14 00.52		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	04.01.14 00.52		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	04.01.14 00.52		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	04.01.14 00.52		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	04.01.14 00.52		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	04.01.14 00.52		1

Final 1.000

02/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB26-0100-16100** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-010 Date Collected: 03.27.14 15.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 21.52

Seq Number: 937532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	04.01.14 00.52		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	04.01.14 00.52		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	04.01.14 00.52		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	04.01.14 00.52		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	04.01.14 00.52		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	04.01.14 00.52		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	04.01.14 00.52		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	04.01.14 00.52		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	04.01.14 00.52		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	04.01.14 00.52		1
Styrene	100-42-5	<1.00	1.00	ug/L	04.01.14 00.52		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	04.01.14 00.52		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	04.01.14 00.52		1
Tetrachloroethylene	127-18-4	**0.990** J	0.500 (RB)	ug/L	04.01.14 00.52		1
Toluene	108-88-3	<2.00	2.00	ug/L	04.01.14 00.52		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	04.01.14 00.52		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	04.01.14 00.52		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	04.01.14 00.52		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	04.01.14 00.52		1
Trichloroethene	79-01-6	<0.500 UJ	0.500 (RB)	ug/L	04.01.14 00.52		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	04.01.14 00.52		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	04.01.14 00.52		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	04.01.14 00.52		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	04.01.14 00.52		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	04.01.14 00.52		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	04.01.14 00.52		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	04.01.14 00.52		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	04.01.14 00.52		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	04.01.14 00.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	69-133	04.01.14 00.52	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	04.01.14 00.52	
Toluene-D8	2037-26-5	100	%	70-130	04.01.14 00.52	
4-Bromofluorobenzene	460-00-4	97	%	70-135	04.01.14 00.52	

Final 1.000

04/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB26-0104-1000** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-011 Date Collected: 03.27.14 16.03

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 21.52

Seq Number: 937532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	04.01.14 01.18		1
Benzene	71-43-2	<0.500	0.500	ug/L	04.01.14 01.18		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	04.01.14 01.18		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	04.01.14 01.18		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	04.01.14 01.18		1
Bromoform	75-25-2	<1.00	1.00	ug/L	04.01.14 01.18		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	04.01.14 01.18		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	04.01.14 01.18		1
MTBE	1634-04-4	<2.00	2.00	ug/L	04.01.14 01.18		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	04.01.14 01.18		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	04.01.14 01.18		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	04.01.14 01.18		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	04.01.14 01.18		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	04.01.14 01.18		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	04.01.14 01.18		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	04.01.14 01.18		1
Chloroform	67-66-3	<0.500	0.500	ug/L	04.01.14 01.18		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	04.01.14 01.18		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	04.01.14 01.18		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	04.01.14 01.18		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	04.01.14 01.18		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	04.01.14 01.18		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	04.01.14 01.18		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	04.01.14 01.18		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	04.01.14 01.18		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	04.01.14 01.18		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	04.01.14 01.18		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	04.01.14 01.18		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	04.01.14 01.18		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	04.01.14 01.18		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	04.01.14 01.18		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	04.01.14 01.18		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	04.01.14 01.18		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	04.01.14 01.18		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	04.01.14 01.18		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	04.01.14 01.18		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	04.01.14 01.18		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	04.01.14 01.18		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	04.01.14 01.18		1

CR4/22/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB26-0104-1000** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-011 Date Collected: 03.27.14 16.03

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.31.14 21.52

Seq Number: 937532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	04.01.14 01.18		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	04.01.14 01.18		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	04.01.14 01.18		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	04.01.14 01.18		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	04.01.14 01.18		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	04.01.14 01.18		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	04.01.14 01.18		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	04.01.14 01.18		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	04.01.14 01.18		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	04.01.14 01.18		1
Styrene	100-42-5	<1.00	1.00	ug/L	04.01.14 01.18		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	04.01.14 01.18		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	04.01.14 01.18		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	04.01.14 01.18		1
Toluene	108-88-3	<2.00	2.00	ug/L	04.01.14 01.18		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	04.01.14 01.18		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	04.01.14 01.18		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	04.01.14 01.18		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	04.01.14 01.18		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	04.01.14 01.18		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	04.01.14 01.18		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	04.01.14 01.18		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	04.01.14 01.18		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	04.01.14 01.18		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	04.01.14 01.18		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	04.01.14 01.18		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	04.01.14 01.18		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	04.01.14 01.18		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	04.01.14 01.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	96	%	69-133	04.01.14 01.18	
1,2-Dichloroethane-D4	17060-07-0	100	%	66-139	04.01.14 01.18	
Toluene-D8	2037-26-5	100	%	70-130	04.01.14 01.18	
4-Bromofluorobenzene	460-00-4	95	%	70-135	04.01.14 01.18	

04/22/14

LDC #: 31346M1a

SDG #: 482071

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/18/14

Page: 1 of 1

Reviewer: FZ

2nd Reviewer: a

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/27/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 9, 10 4, 5
XVII.	Field blanks	ND	TB = 1 EB = 1

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Water

1	1	AVB108-0102-1000 TB	11	2	AVB26-0104-1000 EB	21	653256-1-BLK	31	
2	1	AVB108-0100-20139	12	2	AVB126-0100-15128MS	22	653270-1-BLK	32	
3	1	AVB112-0500-14156	13	2	AVB126-0100-15128MSD	23		33	
4	1	PS-9	14			24		34	
5	1	PS-9D	15			25		35	
6	1	PS-7	16			26		36	
7	1	PS-6	17			27		37	
8	2	AVB126-0100-15128	18			28		38	
9	2	AVB26-0101-16100 D	19			29		39	
10	2	AVB26-0100-16100 D	20			30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC #: 31646M1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: QR

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	653256-LCS/D	B	48 (58-138)	( )	35 (25)	1→7, 653256-1-BLK	J/UJ/P (L2, R7)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC: 31646M1a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd Reviewer: RS

Method: GC/MS VOA (EPA SW 846 Method 8260B)

Analyte	Concentration (µg/L)		RPD (≤ 20%)	Qualifiers (Parents Only)
	9	10		
K	0.730	0.700	4	
AA	1.49	0.990	40	J/A det
S	0.710	0.50U	35	J/UJ/A

Analyte	Concentration (µg/L)		RPD (≤ 20%)	Qualifiers (Parents Only)
	4	5		
K	16.3	16.0	2	
AA	2.48	2.43	2	
S	5.75	5.46	5	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 27, 2014

LDC Report Date: April 21, 2014

Matrix: Water

Parameters: Chromium & Selenium

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 482071

Sample Identification

AVB108-0100-20139
AVB112-0500-14156
PS-9
PS-9D
PS-7
PS-6
AVB126-0100-15128
AVB26-0100-16100
AVB26-0104-1000
AVB108-0100-20139F
AVB112-0500-14156F
PS-9F
PS-9DF
PS-7F
PS-6F
AVB126-0100-15128F
AVB26-0100-16100F
AVB108-0100-20139MS
AVB108-0100-20139MSD
AVB108-0100-20139FMS
AVB108-0100-20139FMSD

Sample IDs appended with "F" were analyzed for dissolved chromium.

Introduction

This data review covers 21 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Chromium and Selenium.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Level III.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No chromium or selenium was found in the preparation blanks.

Sample AVB26-0104-1000 was identified as an equipment blank. No chromium or selenium was found.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for Level III.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

IX. Sample Result Verification

Raw data was not reviewed for this SDG.

X. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XI. Field Duplicates

Samples PS-9 and PS-9D and samples PS-9F and PS-9DF were identified as field duplicates. No chromium or selenium was detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
	PS-9	PS-9D			
Chromium	0.114	0.181	45 (≤20)	J (all detects)	A

West Van Buren Area
Chromium & Selenium - Data Qualification Summary - SDG 482071

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
482071	PS-9 PS-9D	Chromium	J (all detects)	A	Field duplicates (RPD) (R8)

West Van Buren Area
Chromium & Selenium - Laboratory Blank Data Qualification Summary - SDG 482071

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium & Selenium - Field Blank Data Qualification Summary - SDG 482071

No Sample Data Qualified in this SDG

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB108-0100-20139** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-002 Date Collected: 03.27.14 09.40

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0186**	0.0100	mg/L	04.10.14 08.57		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.10.14 08.57		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.03.14 14.31
Seq Number: 938350 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 08.22		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.11.14 08.22		1

C24/23/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB112-0500-14156** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-003 Date Collected: 03.27.14 11.35

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0255**	0.0100	mg/L	04.10.14 09.04		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.10.14 09.04		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.03.14 14.31
Seq Number: 938350 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 08.54		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.11.14 08.54		1

CZ4/23/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-9** | Matrix: Water | Date Received:03.27.14 16.47

Lab Sample Id: 482071-004 | Date Collected: 03.27.14 12.35

Analytical Method: Total Metals by EPA 6010B | Prep Method: SW3010A

Tech: MLI | % Moisture:

Analyst: MKO | Date Prep: 04.02.14 11.10

Seq Number: 938249 | SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.114** J	0.0100 (RB)	mg/L	04.10.14 09.24		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.10.14 09.24		1

Analytical Method: Metals, Dissolved, by EPA 6010B | Prep Method: SW3010A

Tech: MLI | % Moisture:

Analyst: MKO | Date Prep: 04.03.14 14.31

Seq Number: 938350 | SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 09.01		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.11.14 09.01		1

024/23/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-9D** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-005 Date Collected: 03.27.14 12.40

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 04.02.14 11.10

Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.181** J	0.0100 (RB)	mg/L	04.10.14 09.30		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.10.14 09.30		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 04.03.14 14.31

Seq Number: 938350 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 09.08		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.11.14 09.08		1

024/23/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-7** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-006 Date Collected: 03.27.14 13.18

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0183**	0.0100	mg/L	04.10.14 09.37		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.10.14 09.37		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.03.14 14.31
Seq Number: 938350 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 09.14		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.11.14 09.14		1

04/23/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **PS-6** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-007 Date Collected: 03.27.14 14.15

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0223**	0.0100	mg/L	04.10.14 09.43		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.10.14 09.43		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.03.14 14.31
Seq Number: 938350 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 09.21		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.11.14 09.21		1

CR 4/23/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0100-15128** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-008 Date Collected: 03.27.14 14.55

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0266**	0.0100	mg/L	04.10.14 09.50		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.10.14 09.50		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.03.14 14.31
Seq Number: 938350 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 09.54		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.11.14 09.54		1

024/23/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB26-0100-16100** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482071-010 Date Collected: 03.27.14 15.45

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.10
Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0261**	0.0100	mg/L	04.10.14 09.56		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.10.14 09.56		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.03.14 14.31
Seq Number: 938350 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 10.01		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.11.14 10.01		1

Analytical Method: Total Cyanide by EPA 335.4 Prep Method: E335.4P
Tech: BFO % Moisture:
Analyst: BFO Date Prep: 04.04.14 14.34
Seq Number: 937893 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cyanide, Total	57-12-5	<0.0100	0.0100	mg/L	04.04.14 18.30		1

OR 4/23/14

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB26-0104-1000**
Lab Sample Id: 482071-011

Matrix: Water
Date Collected: 03.27.14 16.03

Date Received:03.27.14 16.47

Analytical Method: Total Metals by EPA 6010B
Tech: MLI
Analyst: MKO
Seq Number: 938249

Date Prep: 04.02.14 11.10

Prep Method: SW3010A
% Moisture:

SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.10.14 10.03		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.10.14 10.03		1

Final 1.000

024123/14

LDC #: 31346M4 (6)
SDG #: 482071
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/14
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Chromium, Selenium (EPA SW846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/27/14
II.	Calibration	N	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Matrix Spike Analysis	A	MS/D
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS/D
~~VIII.~~	~~Internal Standard (ICP-MS)~~	N	
IX.	ICP Serial Dilution	N	
X.	Sample Result Verification	N	
XI.	Overall Assessment of Data	A	
XII.	Field Duplicates	SW	(3,4) (12,13)
XIII.	Field Blanks	ND	EB=9

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB108-0100-20139	11	AVB112-0500-14156F	21	AVB108-0100-20139FMSD	11	
2	AVB112-0500-14156	12	PS-9F	22		12	
3	PS-9	13	PS-9DF	23		13	
4	PS-9D	14	PS-7F	24		14	
5	PS-7	15	PS-6F	25		15	
6	PS-6	16	AVB126-0100-15128F	26		16	
7	AVB126-0100-15128	17	AVB26-0100-16100F	27		17	
8	AVB26-0100-16100	18	AVB108-0100-20139MS	28		18	
9	AVB26-0104-1000	19	AVB108-0100-20139MSD	29		19	
10	AVB108-0100-20139F	20	AVB108-0100-20139FMS	30		20	

Notes: Samples appended with "F" were analyzed for dissolved chromium

LDC #: 31646M4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: QR
2nd reviewer: [illegible]

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-17		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, ____
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, ____
QC:1821		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, ____

LDC#: 31646M4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Metals (EPA Method 6010B)

Analyte	Concentration (mg/L)		RPD (≤20)	Qualifiers (Parents Only)
	3	4		
Chromium	0.114	0.181	45	Jdet/A (R8)

\\LDCFILESERVER\Validation\FIELD DUPLICATES\FD_inorganic\31646M4.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 27, 2014
LDC Report Date:	May 23, 2014
Matrix:	Water
Parameters:	Total Cyanide
Validation Level:	Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	482071

Sample Identification

AVB26-0100-16100

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 335.4 for Total Cyanide.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration data were not reviewed for Level III.

III. Calibration verification

Calibration verification data were not reviewed for Level III.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total cyanide was found in the preparation blanks.

No field blanks were identified in this SDG.

V. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Duplicates

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Sample Result Verification

Raw data were not reviewed for this SDG.

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Total Cyanide - Data Qualification Summary - SDG 482071

No Sample Data Qualified in this SDG

West Van Buren Area
Total Cyanide - Laboratory Blank Data Qualification Summary - SDG 482071

No Sample Data Qualified in this SDG

West Van Buren Area
Total Cyanide - Field Blank Data Qualification Summary - SDG 482071

No Sample Data Qualified in this SDG

Certificate of Analytical Results 482071

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB26-0100-16100** Matrix: Water Date Received:03.27.14 16.47

Lab Sample Id: 482071-010 Date Collected: 03.27.14 15.45

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 04.02.14 11.10

Seq Number: 938249 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	**0.0261**	0.0100	mg/L	04.10.14 09.56		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.10.14 09.56		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A

Tech: MLI % Moisture:

Analyst: MKO Date Prep: 04.03.14 14.31

Seq Number: 938350 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 10.01		1
Selenium	7782-49-2	<0.0300	0.0300	mg/L	04.11.14 10.01		1

Analytical Method: Total Cyanide by EPA 335.4 Prep Method: E335.4P

Tech: BFO % Moisture:

Analyst: BFO Date Prep: 04.04.14 14.34

Seq Number: 937893 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cyanide, Total	57-12-5	<0.0100	0.0100	mg/L	04.04.14 18.30		1

04/23/14

LDC #: 31646M6 KM

SDG #: ~~481951~~ 482071

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/17/14

Page: 1 of 1

Reviewer: CR

2nd Reviewer: [illegible]

METHOD: (Analyte) Total Cyanide (EPA Method 335.4)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/27/14
II	Initial calibration	N	
III.	Calibration verification	N	
IV	Blanks	A	
V	Matrix Spike/Matrix Spike Duplicates	N	CS
VI.	Duplicates	N	
VII.	Laboratory control samples	A	LCS
VIII.	Sample result verification	N	
IX.	Overall assessment of data	A	
X.	Field duplicates	N	
XI	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB26-0100-16100	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 27, 2014
LDC Report Date:	April 22, 2014
Matrix:	Water
Parameters:	Volatiles
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	482072

Sample Identification

AVB20-0300-21149

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB108-0102-1000 (from SDG 482071) was identified as a trip blank. No volatile contaminants were found.

Sample AVB26-0104-1000 (from SDG 482071) was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 482072

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 482072

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 482072

No Sample Data Qualified in this SDG

Certificate of Analytical Results 482072

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB20-0300-21149**
Lab Sample Id: 482072-001

Matrix: Water
Date Collected: 03.27.14 08.34

Date Received:03.27.14 16.47

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 937532

Date Prep: 03.31.14 21.52

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	04.01.14 01.44		1
Benzene	71-43-2	<0.500	0.500	ug/L	04.01.14 01.44		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	04.01.14 01.44		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	04.01.14 01.44		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	04.01.14 01.44		1
Bromoform	75-25-2	<1.00	1.00	ug/L	04.01.14 01.44		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	04.01.14 01.44		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	04.01.14 01.44		1
MTBE	1634-04-4	<2.00	2.00	ug/L	04.01.14 01.44		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	04.01.14 01.44		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	04.01.14 01.44		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	04.01.14 01.44		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	04.01.14 01.44		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	04.01.14 01.44		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	04.01.14 01.44		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	04.01.14 01.44		1
Chloroform	67-66-3	**5.45**	0.500	ug/L	04.01.14 01.44		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	04.01.14 01.44		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	04.01.14 01.44		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	04.01.14 01.44		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	04.01.14 01.44		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	04.01.14 01.44		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	04.01.14 01.44		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	04.01.14 01.44		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	04.01.14 01.44		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	04.01.14 01.44		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	04.01.14 01.44		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	04.01.14 01.44		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	04.01.14 01.44		1
1,1-Dichloroethane	75-34-3	**1.93**	0.500	ug/L	04.01.14 01.44		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	04.01.14 01.44		1
1,1-Dichloroethene	75-35-4	**2.91**	0.500	ug/L	04.01.14 01.44		1
cis-1,2-Dichloroethene	156-59-2	**7.32**	0.500	ug/L	04.01.14 01.44		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	04.01.14 01.44		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	04.01.14 01.44		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	04.01.14 01.44		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	04.01.14 01.44		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	04.01.14 01.44		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	04.01.14 01.44		1

CR 4/22/14

Final 1.000

Certificate of Analytical Results 482072

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB20-0300-21149** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482072-001 Date Collected: 03.27.14 08.34

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.31.14 21.52
Seq Number: 937532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	04.01.14 01.44		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	04.01.14 01.44		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	04.01.14 01.44		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	04.01.14 01.44		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	04.01.14 01.44		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	04.01.14 01.44		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	04.01.14 01.44		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	04.01.14 01.44		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	04.01.14 01.44		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	04.01.14 01.44		1
Styrene	100-42-5	<1.00	1.00	ug/L	04.01.14 01.44		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	04.01.14 01.44		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	04.01.14 01.44		1
Tetrachloroethylene	127-18-4	**8.23**	0.500	ug/L	04.01.14 01.44		1
Toluene	108-88-3	<2.00	2.00	ug/L	04.01.14 01.44		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	04.01.14 01.44		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	04.01.14 01.44		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	04.01.14 01.44		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	04.01.14 01.44		1
Trichloroethene	79-01-6	**54.9**	0.500	ug/L	04.01.14 01.44		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	04.01.14 01.44		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	04.01.14 01.44		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	04.01.14 01.44		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	04.01.14 01.44		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	04.01.14 01.44		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	04.01.14 01.44		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	04.01.14 01.44		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	04.01.14 01.44		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	04.01.14 01.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	69-133	04.01.14 01.44	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	04.01.14 01.44	
Toluene-D8	2037-26-5	99	%	70-130	04.01.14 01.44	
4-Bromofluorobenzene	460-00-4	92	%	70-135	04.01.14 01.44	

Final 1.000

04/22/14

LDC #: 31346N1a (6) **VALIDATION COMPLETENESS WORKSHEET** Date: 4/18/14
SDG #: 482072 Level III Page: 1 of 1
Laboratory: Xenco Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/27/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	482071-008 MS ID
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = AVB108-0102-1000 ; EB = AVB26-0104-1000 / SDG # 482071

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:
water

1	AVB20-0300-21149	11	653270-1-BLK	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 27, 2014
LDC Report Date:	April 21, 2014
Matrix:	Water
Parameters:	Chromium
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	482072

Sample Identification

AVB20-0300-21149
AVB20-0300-21149F

Sample IDs appended with "F" were analyzed for dissolved chromium.

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Chromium.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Level III.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No chromium was found in the preparation blanks.

Sample AVB26-0104-1000 (from SDG 482071) was identified as an equipment blank. No chromium was found.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for Level III.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

IX. Sample Result Verification

Raw data was not reviewed for this SDG.

X. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Chromium - Data Qualification Summary - SDG 482072

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Laboratory Blank Data Qualification Summary - SDG 482072

No Sample Data Qualified in this SDG

West Van Buren Area
Chromium - Field Blank Data Qualification Summary - SDG 482072

No Sample Data Qualified in this SDG

Certificate of Analytical Results 482072

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB20-0300-21149** Matrix: Water Date Received:03.27.14 16.47
Lab Sample Id: 482072-001 Date Collected: 03.27.14 08.34

Analytical Method: Total Metals by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.03.14 14.31
Seq Number: 938350 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 10.59		1

Analytical Method: Metals, Dissolved, by EPA 6010B Prep Method: SW3010A
Tech: MLI % Moisture:
Analyst: MKO Date Prep: 04.02.14 11.00
Seq Number: 938330 SUB: AZ0765

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chromium	7440-47-3	<0.0100	0.0100	mg/L	04.11.14 04.17		1

CZ4/23/14

LDC #: 31346N4 (6)
SDG #: 482072
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/14
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Chromium (EPA SW846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/27/14
II.	Calibration	N	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Matrix Spike Analysis	A	MS/D (482071)
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS/D
~~VIII.~~	~~Internal Standard (ICP-MS)~~	N	
IX.	ICP Serial Dilution	N	
X.	Sample Result Verification	N	
XI.	Overall Assessment of Data	A	
XII.	Field Duplicates	N	
XIII.	Field Blanks	ND	EB= AVB26-0104-1000 (482071)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	AVB20-0300-21149	11		21		11	
2	AVB20-0300-21149F	12		22		12	
3		13		23		13	
4		14		24		14	
5		15		25		15	
6		16		26		16	
7		17		27		17	
8		18		28		18	
9		19		29		19	
10		20		30		20	

Notes: Samples appended with "F" were analyzed for dissolved chromium

LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Terranext
4050 E. Cotton Center Blvd. Ste 73
Phoenix, AZ 85040
ATTN: Mr. Chuck Gordon

May 30, 2014

SUBJECT: Revised West Van Buren Area, Data Validation

Dear Mr. Gordon,

Enclosed are the revised validation reports for the fraction listed below. Please replace the previously submitted reports with the enclosed revised reports.

LDC Project #31646:

SDG #	Fraction
480700, 480824, 480973 481073, 481201	Volatiles

- Per client request, the detected toluene samples were estimated due to the suspected contamination during the collection process

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink
Project Manager/Chemist

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 10, 2014
LDC Report Date:	May 29, 2014
Matrix:	Water
Parameters:	Volatiles
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	480700

Sample Identification

AVB124-0202-1000
AVB124-0200-16270
AVB131-0100-16215
AVB126-0200-14230
AVB126-0300-13325
AVB126-0304-1000

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB124-0202-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB126-0304-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

The following nonconformance was observed:

Sample	Finding	Flag	A or P
All samples in SDG 480700	The client indicates that there may have been toluene contamination during the collection process.	J (all detects)	A

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 480700

SDG	Sample	Compound	Flag	A or P	Reason (Code)
480700	AVB124-0202-1000 AVB124-0200-16270 AVB131-0100-16215 AVB126-0200-14230 AVB126-0300-13325 AVB126-0304-1000	Toluene	J (all detects)	A	Overall assessment of data (N3)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 480700

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 480700

No Sample Data Qualified in this SDG

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0202-1000** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-001 Date Collected: 03.10.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 17.05		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 17.05		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 17.05		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 17.05		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 17.05		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 17.05		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 17.05		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 17.05		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 17.05		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 17.05		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 17.05		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 17.05		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 17.05		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 17.05		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 17.05		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 17.05		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 17.05		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 17.05		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 17.05		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 17.05		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 17.05		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 17.05		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 17.05		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 17.05		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 17.05		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 17.05		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 17.05		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 17.05		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 17.05		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 17.05		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 17.05		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 17.05		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 17.05		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 17.05		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 17.05		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 17.05		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 17.05		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 17.05		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 17.05		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0202-1000** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-001 Date Collected: 03.10.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 17.05		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 17.05		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 17.05		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 17.05		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 17.05		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 17.05		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 17.05		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 17.05		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 17.05		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 17.05		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 17.05		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 17.05		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 17.05		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 17.05		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.13.14 17.05		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 17.05		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 17.05		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 17.05		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 17.05		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 17.05		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 17.05		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 17.05		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 17.05		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 17.05		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 17.05		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 17.05		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 17.05		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 17.05		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 17.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	69-133	03.13.14 17.05	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	03.13.14 17.05	
Toluene-D8	2037-26-5	115	%	70-130	03.13.14 17.05	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.13.14 17.05	

Final 1.000

CRY 12/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0200-16270** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-002 Date Collected: 03.10.14 08.42

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 17.31		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 17.31		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 17.31		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 17.31		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 17.31		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 17.31		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 17.31		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 17.31		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 17.31		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 17.31		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 17.31		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 17.31		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 17.31		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 17.31		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 17.31		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 17.31		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 17.31		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 17.31		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 17.31		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 17.31		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 17.31		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 17.31		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 17.31		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 17.31		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 17.31		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 17.31		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 17.31		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 17.31		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 17.31		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 17.31		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 17.31		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 17.31		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 17.31		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 17.31		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 17.31		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 17.31		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 17.31		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 17.31		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 17.31		1

Final 1.000

02/4/22/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB124-0200-16270** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-002 Date Collected: 03.10.14 08.42

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 17.31		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 17.31		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 17.31		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 17.31		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 17.31		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 17.31		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 17.31		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 17.31		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 17.31		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 17.31		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 17.31		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 17.31		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 17.31		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 17.31		1
Toluene	108-88-3	**21.1** J(N3)	2.00	ug/L	03.13.14 17.31		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 17.31		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 17.31		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 17.31		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 17.31		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 17.31		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 17.31		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 17.31		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 17.31		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 17.31		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 17.31		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 17.31		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 17.31		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 17.31		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 17.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	69-133	03.13.14 17.31	
1,2-Dichloroethane-D4	17060-07-0	101	%	66-139	03.13.14 17.31	
Toluene-D8	2037-26-5	107	%	70-130	03.13.14 17.31	
4-Bromofluorobenzene	460-00-4	100	%	70-135	03.13.14 17.31	

CL 4/22/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB131-0100-16215** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-003 Date Collected: 03.10.14 10.20

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 17.57		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 17.57		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 17.57		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 17.57		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 17.57		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 17.57		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 17.57		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 17.57		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 17.57		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 17.57		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 17.57		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 17.57		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 17.57		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 17.57		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 17.57		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 17.57		1
Chloroform	67-66-3	**2.36**	0.500	ug/L	03.13.14 17.57		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 17.57		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 17.57		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 17.57		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 17.57		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 17.57		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 17.57		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 17.57		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 17.57		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 17.57		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 17.57		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 17.57		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 17.57		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 17.57		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 17.57		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 17.57		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 17.57		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 17.57		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 17.57		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 17.57		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 17.57		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 17.57		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 17.57		1

Final 1.000

CA 4/22/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB131-0100-16215** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-003 Date Collected: 03.10.14 10.20

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 17.57		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 17.57		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 17.57		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 17.57		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 17.57		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 17.57		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 17.57		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 17.57		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 17.57		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 17.57		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 17.57		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 17.57		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 17.57		1
Tetrachloroethylene	127-18-4	**1.07**	0.500	ug/L	03.13.14 17.57		1
Toluene	108-88-3	**58.8** J(N3)	2.00	ug/L	03.13.14 17.57		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 17.57		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 17.57		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 17.57		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 17.57		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 17.57		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 17.57		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 17.57		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 17.57		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 17.57		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 17.57		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 17.57		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 17.57		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 17.57		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 17.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	69-133	03.13.14 17.57	
1,2-Dichloroethane-D4	17060-07-0	107	%	66-139	03.13.14 17.57	
Toluene-D8	2037-26-5	100	%	70-130	03.13.14 17.57	
4-Bromofluorobenzene	460-00-4	98	%	70-135	03.13.14 17.57	

Final 1.000

CEW 3/24/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0200-14230** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-004 Date Collected: 03.10.14 12.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 18.23		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 18.23		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 18.23		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 18.23		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 18.23		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 18.23		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 18.23		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 18.23		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 18.23		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 18.23		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 18.23		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 18.23		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 18.23		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 18.23		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 18.23		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 18.23		1
Chloroform	67-66-3	**0.750**	0.500	ug/L	03.13.14 18.23		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 18.23		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 18.23		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 18.23		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 18.23		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 18.23		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 18.23		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 18.23		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 18.23		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 18.23		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 18.23		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 18.23		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 18.23		1
1,1-Dichloroethane	75-34-3	**1.86**	0.500	ug/L	03.13.14 18.23		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 18.23		1
1,1-Dichloroethene	75-35-4	**1.97**	0.500	ug/L	03.13.14 18.23		1
cis-1,2-Dichloroethene	156-59-2	**1.88**	0.500	ug/L	03.13.14 18.23		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 18.23		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 18.23		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 18.23		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 18.23		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 18.23		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 18.23		1

CL 4/23/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0200-14230**
Lab Sample Id: 480700-004

Matrix: Water
Date Collected: 03.10.14 12.45

Date Received:03.10.14 15.35

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936164

Date Prep: 03.13.14 11.04

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 18.23		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 18.23		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 18.23		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 18.23		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 18.23		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 18.23		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 18.23		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 18.23		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 18.23		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 18.23		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 18.23		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 18.23		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 18.23		1
Tetrachloroethylene	127-18-4	**1.16**	0.500	ug/L	03.13.14 18.23		1
Toluene	108-88-3	**36.1** J(N3)	2.00	ug/L	03.13.14 18.23		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 18.23		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 18.23		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 18.23		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 18.23		1
Trichloroethene	79-01-6	**7.81**	0.500	ug/L	03.13.14 18.23		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 18.23		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 18.23		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 18.23		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 18.23		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 18.23		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 18.23		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 18.23		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 18.23		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 18.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.13.14 18.23	
1,2-Dichloroethane-D4	17060-07-0	105	%	66-139	03.13.14 18.23	
Toluene-D8	2037-26-5	109	%	70-130	03.13.14 18.23	
4-Bromofluorobenzene	460-00-4	98	%	70-135	03.13.14 18.23	

Final 1.000

CL 4/2/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0300-13325** Matrix: Water Date Received:03.10.14 15.35

Lab Sample Id: 480700-005 Date Collected: 03.10.14 14.47

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 18.48		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 18.48		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 18.48		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 18.48		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 18.48		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 18.48		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 18.48		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 18.48		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 18.48		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 18.48		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 18.48		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 18.48		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 18.48		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 18.48		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 18.48		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 18.48		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 18.48		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 18.48		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 18.48		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 18.48		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 18.48		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 18.48		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 18.48		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 18.48		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 18.48		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 18.48		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 18.48		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 18.48		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 18.48		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 18.48		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 18.48		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 18.48		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 18.48		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 18.48		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 18.48		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 18.48		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 18.48		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 18.48		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 18.48		1

Final 1.000

02/12/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0300-13325** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-005 Date Collected: 03.10.14 14.47

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 18.48		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 18.48		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 18.48		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 18.48		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 18.48		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 18.48		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 18.48		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 18.48		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 18.48		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 18.48		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 18.48		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 18.48		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 18.48		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 18.48		1
Toluene	108-88-3	**72.2** J(N3)	2.00	ug/L	03.13.14 18.48		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 18.48		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 18.48		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 18.48		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 18.48		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 18.48		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 18.48		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 18.48		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 18.48		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 18.48		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 18.48		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 18.48		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 18.48		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 18.48		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 18.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.13.14 18.48	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.13.14 18.48	
Toluene-D8	2037-26-5	105	%	70-130	03.13.14 18.48	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.13.14 18.48	

CZ 4/22/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0304-1000** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-006 Date Collected: 03.10.14 14.50

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 19.14		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 19.14		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 19.14		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 19.14		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 19.14		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 19.14		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 19.14		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 19.14		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 19.14		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 19.14		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 19.14		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 19.14		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 19.14		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 19.14		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 19.14		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 19.14		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 19.14		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 19.14		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 19.14		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 19.14		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 19.14		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 19.14		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 19.14		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 19.14		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 19.14		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 19.14		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 19.14		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 19.14		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 19.14		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 19.14		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 19.14		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 19.14		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 19.14		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 19.14		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 19.14		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 19.14		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 19.14		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 19.14		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 19.14		1

03/12/14

Certificate of Analytical Results 480700

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB126-0304-1000** Matrix: Water Date Received:03.10.14 15.35
Lab Sample Id: 480700-006 Date Collected: 03.10.14 14.50

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.13.14 11.04
Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 19.14		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 19.14		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 19.14		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 19.14		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 19.14		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 19.14		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 19.14		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 19.14		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 19.14		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 19.14		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 19.14		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 19.14		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 19.14		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 19.14		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.13.14 19.14		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 19.14		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 19.14		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 19.14		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 19.14		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 19.14		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 19.14		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 19.14		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 19.14		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 19.14		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 19.14		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 19.14		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 19.14		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 19.14		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 19.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.13.14 19.14	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.13.14 19.14	
Toluene-D8	2037-26-5	106	%	70-130	03.13.14 19.14	
4-Bromofluorobenzene	460-00-4	97	%	70-135	03.13.14 19.14	

CS 4/22/14

LDC #: 31~~3~~46A1a (6)
SDG #: 480700
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/14
Page: 1 of 1
Reviewer: EJ
2nd Reviewer: CE

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	lcs ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	Toluene: J det/A
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 1 EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated ~~Samples~~ Waters:

1	AVB124-0202-1000 TB	11	652390-1-BLK	21		31	
2	AVB124-0200-16270	12		22		32	
3	AVB131-0100-16215	13		23		33	
4	AVB126-0200-14230	14		24		34	
5	AVB126-0300-13325	15		25		35	
6	AVB126-0304-1000 EB	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 11, 2014

LDC Report Date: May 29, 2014

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 480824

Sample Identification

AVB136-0102-1000
AVB136-0100-14235
AVB121-0200-13240
AVB137-0100-13260
AVB133-0100-16200
AVB133-0104-1000
AVB133-0104-1000MS
AVB133-0104-1000MSD

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB136-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB133-0104-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652470LCS/D (AVB133-0104-1000 652470-1-BLK)	Vinyl chloride	-	122 (43-120)	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

The following nonconformance was observed:

Sample	Finding	Flag	A or P
All samples in SDG 480824	The client indicates that there may have been toluene contamination during the collection process.	J (all detects)	A

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 480824

SDG	Sample	Compound	Flag	A or P	Reason (Code)
480824	AVB133-0104-1000	Vinyl chloride	J (all detects)	P	Laboratory control samples (%R) (L1)
480824	AVB136-0102-1000 AVB136-0100-14235 AVB121-0200-13240 AVB137-0100-13260 AVB133-0100-16200 AVB133-0104-1000	Toluene	J (all detects)	A	Overall assessment of data (N3)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 480824

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 480824

No Sample Data Qualified in this SDG

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB136-0102-1000** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-001 Date Collected: 03.11.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 19.40		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 19.40		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 19.40		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 19.40		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 19.40		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 19.40		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 19.40		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 19.40		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 19.40		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 19.40		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 19.40		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 19.40		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 19.40		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 19.40		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 19.40		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 19.40		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 19.40		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 19.40		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 19.40		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 19.40		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 19.40		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 19.40		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 19.40		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 19.40		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 19.40		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 19.40		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 19.40		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 19.40		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 19.40		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 19.40		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 19.40		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 19.40		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 19.40		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 19.40		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 19.40		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 19.40		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 19.40		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 19.40		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 19.40		1

Final 1.000

03/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB136-0102-1000** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-001 Date Collected: 03.11.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 19.40		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 19.40		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 19.40		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 19.40		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 19.40		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 19.40		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 19.40		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 19.40		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 19.40		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 19.40		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 19.40		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 19.40		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 19.40		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 19.40		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.13.14 19.40		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 19.40		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 19.40		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 19.40		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 19.40		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 19.40		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 19.40		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 19.40		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 19.40		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 19.40		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 19.40		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 19.40		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 19.40		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 19.40		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 19.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.13.14 19.40	
1,2-Dichloroethane-D4	17060-07-0	108	%	66-139	03.13.14 19.40	
Toluene-D8	2037-26-5	104	%	70-130	03.13.14 19.40	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.13.14 19.40	

Final 1.000

03/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB136-0100-14235** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-002 Date Collected: 03.11.14 10.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 20.06		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 20.06		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 20.06		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 20.06		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 20.06		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 20.06		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 20.06		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 20.06		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 20.06		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 20.06		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 20.06		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 20.06		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 20.06		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 20.06		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 20.06		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 20.06		1
Chloroform	67-66-3	**1.11**	0.500	ug/L	03.13.14 20.06		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 20.06		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 20.06		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 20.06		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 20.06		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 20.06		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 20.06		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 20.06		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 20.06		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 20.06		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 20.06		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 20.06		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 20.06		1
1,1-Dichloroethane	75-34-3	**1.20**	0.500	ug/L	03.13.14 20.06		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 20.06		1
1,1-Dichloroethene	75-35-4	**3.63**	0.500	ug/L	03.13.14 20.06		1
cis-1,2-Dichloroethene	156-59-2	**3.36**	0.500	ug/L	03.13.14 20.06		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 20.06		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 20.06		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 20.06		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 20.06		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 20.06		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 20.06		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB136-0100-14235** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-002 Date Collected: 03.11.14 10.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 20.06		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 20.06		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 20.06		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 20.06		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 20.06		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 20.06		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 20.06		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 20.06		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 20.06		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 20.06		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 20.06		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 20.06		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 20.06		1
Tetrachloroethylene	127-18-4	**6.57**	0.500	ug/L	03.13.14 20.06		1
Toluene	108-88-3	**62.8** J(N3)	2.00	ug/L	03.13.14 20.06		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 20.06		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 20.06		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 20.06		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 20.06		1
Trichloroethene	79-01-6	**16.1**	0.500	ug/L	03.13.14 20.06		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 20.06		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 20.06		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 20.06		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 20.06		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 20.06		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 20.06		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 20.06		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 20.06		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 20.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	110	%	69-133	03.13.14 20.06	
1,2-Dichloroethane-D4	17060-07-0	112	%	66-139	03.13.14 20.06	
Toluene-D8	2037-26-5	106	%	70-130	03.13.14 20.06	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.13.14 20.06	

03/20/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB121-0200-13240** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-003 Date Collected: 03.11.14 12.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 20.32		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 20.32		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 20.32		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 20.32		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 20.32		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 20.32		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 20.32		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 20.32		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 20.32		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 20.32		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 20.32		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 20.32		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 20.32		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 20.32		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 20.32		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 20.32		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 20.32		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 20.32		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 20.32		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 20.32		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 20.32		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 20.32		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 20.32		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 20.32		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 20.32		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 20.32		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 20.32		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 20.32		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 20.32		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 20.32		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 20.32		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 20.32		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 20.32		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 20.32		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 20.32		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 20.32		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 20.32		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 20.32		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 20.32		1

Final 1.000

CRY 1/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB121-0200-13240** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-003 Date Collected: 03.11.14 12.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 20.32		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 20.32		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 20.32		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 20.32		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 20.32		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 20.32		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 20.32		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 20.32		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 20.32		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 20.32		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 20.32		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 20.32		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 20.32		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 20.32		1
Toluene	108-88-3	**46.7** J(N3)	2.00	ug/L	03.13.14 20.32		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 20.32		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 20.32		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 20.32		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 20.32		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 20.32		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 20.32		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 20.32		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 20.32		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 20.32		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 20.32		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 20.32		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 20.32		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 20.32		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 20.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.13.14 20.32	
1,2-Dichloroethane-D4	17060-07-0	113	%	66-139	03.13.14 20.32	
Toluene-D8	2037-26-5	108	%	70-130	03.13.14 20.32	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.13.14 20.32	

03/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB137-0100-13260**
Lab Sample Id: 480824-004

Matrix: Water
Date Collected: 03.11.14 14.22

Date Received:03.12.14 09.10

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936164

Date Prep: 03.13.14 11.04

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 20.57		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 20.57		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 20.57		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 20.57		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 20.57		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 20.57		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 20.57		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 20.57		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 20.57		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 20.57		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 20.57		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 20.57		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 20.57		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 20.57		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 20.57		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 20.57		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.13.14 20.57		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 20.57		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 20.57		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 20.57		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 20.57		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 20.57		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 20.57		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 20.57		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 20.57		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 20.57		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 20.57		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 20.57		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 20.57		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 20.57		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 20.57		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 20.57		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 20.57		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 20.57		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 20.57		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 20.57		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 20.57		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 20.57		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 20.57		1

Final 1.000

03/17/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB137-0100-13260** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-004 Date Collected: 03.11.14 14.22

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 20.57		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 20.57		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 20.57		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 20.57		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 20.57		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 20.57		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 20.57		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 20.57		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 20.57		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 20.57		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 20.57		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 20.57		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 20.57		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 20.57		1
Toluene	108-88-3	**15.6** J(N3)	2.00	ug/L	03.13.14 20.57		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 20.57		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 20.57		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 20.57		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 20.57		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 20.57		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 20.57		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 20.57		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 20.57		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 20.57		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 20.57		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 20.57		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 20.57		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 20.57		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 20.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.13.14 20.57	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.13.14 20.57	
Toluene-D8	2037-26-5	108	%	70-130	03.13.14 20.57	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.13.14 20.57	

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB133-0100-16200** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-005 Date Collected: 03.11.14 16.35

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.13.14 11.04

Seq Number: 936164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.13.14 21.23		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.13.14 21.23		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.13.14 21.23		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.13.14 21.23		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.13.14 21.23		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.13.14 21.23		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.13.14 21.23		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.13.14 21.23		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.13.14 21.23		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.13.14 21.23		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.13.14 21.23		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.13.14 21.23		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.13.14 21.23		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.13.14 21.23		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.13.14 21.23		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.13.14 21.23		1
Chloroform	67-66-3	**0.620**	0.500	ug/L	03.13.14 21.23		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.13.14 21.23		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.13.14 21.23		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.13.14 21.23		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.13.14 21.23		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.13.14 21.23		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.13.14 21.23		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.13.14 21.23		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.13.14 21.23		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.13.14 21.23		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.13.14 21.23		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.13.14 21.23		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.13.14 21.23		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.13.14 21.23		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.13.14 21.23		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.13.14 21.23		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.13.14 21.23		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.13.14 21.23		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.13.14 21.23		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.13.14 21.23		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.13.14 21.23		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.13.14 21.23		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.13.14 21.23		1

CS 4/22/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB133-0100-16200**
Lab Sample Id: 480824-005

Matrix: Water
Date Collected: 03.11.14 16.35

Date Received:03.12.14 09.10

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936164

Date Prep: 03.13.14 11.04

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.13.14 21.23		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.13.14 21.23		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.13.14 21.23		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.13.14 21.23		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.13.14 21.23		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.13.14 21.23		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.13.14 21.23		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.13.14 21.23		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.13.14 21.23		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.13.14 21.23		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.13.14 21.23		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.13.14 21.23		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.13.14 21.23		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.13.14 21.23		1
Toluene	108-88-3	**18.0** J(N3)	2.00	ug/L	03.13.14 21.23		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.13.14 21.23		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.13.14 21.23		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.13.14 21.23		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.13.14 21.23		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.13.14 21.23		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.13.14 21.23		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.13.14 21.23		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.13.14 21.23		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.13.14 21.23		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.13.14 21.23		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.13.14 21.23		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.13.14 21.23		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.13.14 21.23		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.13.14 21.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	123	%	69-133	03.13.14 21.23	
1,2-Dichloroethane-D4	17060-07-0	113	%	66-139	03.13.14 21.23	
Toluene-D8	2037-26-5	106	%	70-130	03.13.14 21.23	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.13.14 21.23	

Final 1.000

03/12/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB133-0104-1000** Matrix: Water Date Received:03.12.14 09.10

Lab Sample Id: 480824-006 Date Collected: 03.11.14 16.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 14.51		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 14.51		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 14.51		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 14.51		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 14.51		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 14.51		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 14.51		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 14.51		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 14.51		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 14.51		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 14.51		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 14.51		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 14.51		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 14.51		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 14.51		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 14.51		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 14.51		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 14.51		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 14.51		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 14.51		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 14.51		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 14.51		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 14.51		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 14.51		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 14.51		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 14.51		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 14.51		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 14.51		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 14.51		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 14.51		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 14.51		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 14.51		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 14.51		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 14.51		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 14.51		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 14.51		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 14.51		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 14.51		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 14.51		1

Final 1.000

03/14/14

Certificate of Analytical Results 480824

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB133-0104-1000** Matrix: Water Date Received:03.12.14 09.10
Lab Sample Id: 480824-006 Date Collected: 03.11.14 16.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.14.14 12.26
Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 14.51		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 14.51		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 14.51		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 14.51		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 14.51		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 14.51		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 14.51		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 14.51		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 14.51		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 14.51		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 14.51		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 14.51		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 14.51		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 14.51		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 14.51		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 14.51		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 14.51		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 14.51		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 14.51		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 14.51		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 14.51		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 14.51		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 14.51		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 14.51		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 14.51		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 14.51		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 14.51		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 14.51	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 14.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.14.14 14.51	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.14.14 14.51	
Toluene-D8	2037-26-5	105	%	70-130	03.14.14 14.51	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 14.51	

Final 1.000

03/22/14

LDC #: 31~~3~~46B1a (6)
SDG #: 480824
Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/14
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	Δ	Sampling dates: 3/11/~~13~~ 14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	Δ	
VI.	Surrogate spikes	Δ	
VII.	Matrix spike/Matrix spike duplicates	Δ	
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	Δ	Toluene: J det/A
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 1 EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:
Water

1	AVB136-0102-1000 TB	11 1	652390-1-BLK	21		31	
2	AVB136-0100-14235	12 2	652470-1-BLK	22		32	
3	AVB121-0200-13240	13		23		33	
4	AVB137-0100-13260	14		24		34	
5	AVB133-0100-16200	15		25		35	
6 ~~2~~	AVB133-0104-1000 EB	16		26		36	
7	AVB133-0104-1000MS	17		27		37	
8	AVB133-0104-1000MSD	18		28		38	
9		19		29		39	
10		20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC #: 31646B1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: 2

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652470-LCS ID	C	( )	122 (43-120)	( )	6,	J/Pdet (11)
			( )	( )	( )	652470-1-BLK	
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: West Van Buren Area

Collection Date: March 12, 2014

LDC Report Date: May 29, 2014

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Xenco Laboratories

Sample Delivery Group (SDG): 480973

Sample Identification

AVB142-0102-1000
AVB142-0100-11335
AVB82-0100-24327
AVB82-0200-12410
AVB82-0201-12410
AVB91-0300-12360
AVB122-0300-18330
AVB122-0304-1000

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB142-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB122-0304-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652470-LCS/D (All samples in SDG 480973)	Vinyl chloride	-	122 (43-120)	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

The following nonconformance was observed:

Sample	Finding	Flag	A or P
All samples in SDG 480973	The client indicates that there may have been toluene contamination during the collection process.	J (all detects)	A

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples AVB82-0200-12410 and AVB82-0201-12410 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB82-0200-12410	AVB82-0201-12410			
1,1-Dichloroethene	0.920	0.890	3 (≤20)	-	-
Tetrachloroethene	3.96	3.99	1 (≤20)	-	-
Toluene	28.7	29.3	2 (≤20)	-	-

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 480973

SDG	Sample	Compound	Flag	A or P	Reason (Code)
480973	AVB142-0102-1000 AVB142-0100-11335 AVB82-0100-24327 AVB82-0200-12410 AVB82-0201-12410 AVB91-0300-12360 AVB122-0300-18330 AVB122-0304-1000	Vinyl chloride	J (all detects)	P	Laboratory control samples (%R) (L1)
480973	AVB142-0102-1000 AVB142-0100-11335 AVB82-0100-24327 AVB82-0200-12410 AVB82-0201-12410 AVB91-0300-12360 AVB122-0300-18330 AVB122-0304-1000	Toluene	J (all detects)	A	Overall assessment of data (N3)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 480973

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 480973

No Sample Data Qualified in this SDG

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB142-0102-1000** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-001 Date Collected: 03.12.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 16.34		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 16.34		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 16.34		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 16.34		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 16.34		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 16.34		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 16.34		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 16.34		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 16.34		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 16.34		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 16.34		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 16.34		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 16.34		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 16.34		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 16.34		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 16.34		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 16.34		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 16.34		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 16.34		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 16.34		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 16.34		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 16.34		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 16.34		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 16.34		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 16.34		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 16.34		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 16.34		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 16.34		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 16.34		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 16.34		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 16.34		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 16.34		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 16.34		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 16.34		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 16.34		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 16.34		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 16.34		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 16.34		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 16.34		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB142-0102-1000**
Lab Sample Id: 480973-001

Matrix: Water
Date Collected: 03.12.14 08.00

Date Received:03.12.14 17.03

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936404

Date Prep: 03.14.14 12.26

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 16.34		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 16.34		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 16.34		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 16.34		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 16.34		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 16.34		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 16.34		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 16.34		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 16.34		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 16.34		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 16.34		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 16.34		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 16.34		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 16.34		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 16.34		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 16.34		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 16.34		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 16.34		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 16.34		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 16.34		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 16.34		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 16.34		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 16.34		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 16.34		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 16.34		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 16.34		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 16.34		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 16.34	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 16.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	69-133	03.14.14 16.34	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.14.14 16.34	
Toluene-D8	2037-26-5	108	%	70-130	03.14.14 16.34	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 16.34	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB142-0100-11335** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-002 Date Collected: 03.12.14 07.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 17.00		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 17.00		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 17.00		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 17.00		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 17.00		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 17.00		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 17.00		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 17.00		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 17.00		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 17.00		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 17.00		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 17.00		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 17.00		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 17.00		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 17.00		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 17.00		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 17.00		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 17.00		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 17.00		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 17.00		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 17.00		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 17.00		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 17.00		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 17.00		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 17.00		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 17.00		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 17.00		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 17.00		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 17.00		1
1,1-Dichloroethane	75-34-3	**1.71**	0.500	ug/L	03.14.14 17.00		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 17.00		1
1,1-Dichloroethene	75-35-4	**4.73**	0.500	ug/L	03.14.14 17.00		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 17.00		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 17.00		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 17.00		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 17.00		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 17.00		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 17.00		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 17.00		1

Final 1.000

C24/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB142-0100-11335** Matrix: Water Date Received:03.12.14 17.03
Lab Sample Id: 480973-002 Date Collected: 03.12.14 07.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.14.14 12.26
Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 17.00		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 17.00		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 17.00		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 17.00		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 17.00		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 17.00		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 17.00		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 17.00		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 17.00		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 17.00		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 17.00		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 17.00		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 17.00		1
Tetrachloroethylene	127-18-4	**8.96**	0.500	ug/L	03.14.14 17.00		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 17.00		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 17.00		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 17.00		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 17.00		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 17.00		1
Trichloroethene	79-01-6	**4.06**	0.500	ug/L	03.14.14 17.00		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 17.00		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 17.00		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 17.00		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 17.00		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 17.00		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 17.00		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 17.00		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 17.00	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 17.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	69-133	03.14.14 17.00	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.14.14 17.00	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 17.00	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 17.00	

CL 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0100-24327**
Lab Sample Id: 480973-003

Matrix: Water
Date Collected: 03.12.14 09.55

Date Received:03.12.14 17.03

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936404

Date Prep: 03.14.14 12.26

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 17.26		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 17.26		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 17.26		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 17.26		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 17.26		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 17.26		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 17.26		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 17.26		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 17.26		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 17.26		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 17.26		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 17.26		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 17.26		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 17.26		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 17.26		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 17.26		1
Chloroform	67-66-3	**1.22**	0.500	ug/L	03.14.14 17.26		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 17.26		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 17.26		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 17.26		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 17.26		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 17.26		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 17.26		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 17.26		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 17.26		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 17.26		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 17.26		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 17.26		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 17.26		1
1,1-Dichloroethane	75-34-3	**1.10**	0.500	ug/L	03.14.14 17.26		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 17.26		1
1,1-Dichloroethene	75-35-4	**27.7**	0.500	ug/L	03.14.14 17.26		1
cis-1,2-Dichloroethene	156-59-2	**1.42**	0.500	ug/L	03.14.14 17.26		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 17.26		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 17.26		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 17.26		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 17.26		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 17.26		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 17.26		1

Final 1.000

CL 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0100-24327** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-003 Date Collected: 03.12.14 09.55

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 17.26		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 17.26		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 17.26		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 17.26		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 17.26		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 17.26		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 17.26		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 17.26		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 17.26		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 17.26		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 17.26		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 17.26		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 17.26		1
Tetrachloroethylene	127-18-4	**68.1**	0.500	ug/L	03.14.14 17.26		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 17.26		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 17.26		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 17.26		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 17.26		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 17.26		1
Trichloroethene	79-01-6	**22.9**	0.500	ug/L	03.14.14 17.26		1
Trichlorofluoromethane	75-69-4	**4.14**	2.00	ug/L	03.14.14 17.26		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 17.26		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 17.26		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 17.26		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 17.26		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 17.26		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 17.26		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 17.26	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 17.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.14.14 17.26	
1,2-Dichloroethane-D4	17060-07-0	112	%	66-139	03.14.14 17.26	
Toluene-D8	2037-26-5	109	%	70-130	03.14.14 17.26	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 17.26	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0200-12410** Matrix: Water Date Received:03.12.14 17.03
Lab Sample Id: 480973-004 Date Collected: 03.12.14 11.15

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.14.14 12.26
Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 17.52		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 17.52		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 17.52		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 17.52		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 17.52		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 17.52		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 17.52		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 17.52		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 17.52		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 17.52		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 17.52		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 17.52		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 17.52		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 17.52		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 17.52		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 17.52		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 17.52		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 17.52		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 17.52		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 17.52		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 17.52		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 17.52		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 17.52		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 17.52		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 17.52		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 17.52		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 17.52		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 17.52		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 17.52		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 17.52		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 17.52		1
1,1-Dichloroethene	75-35-4	**0.920**	0.500	ug/L	03.14.14 17.52		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 17.52		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 17.52		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 17.52		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 17.52		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 17.52		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 17.52		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 17.52		1

Final 1.000

03/12/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0200-12410** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-004 Date Collected: 03.12.14 11.15

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 17.52		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 17.52		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 17.52		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 17.52		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 17.52		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 17.52		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 17.52		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 17.52		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 17.52		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 17.52		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 17.52		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 17.52		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 17.52		1
Tetrachloroethylene	127-18-4	**3.96**	0.500	ug/L	03.14.14 17.52		1
Toluene	108-88-3	**28.7** J (NB)	2.00	ug/L	03.14.14 17.52		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 17.52		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 17.52		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 17.52		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 17.52		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 17.52		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 17.52		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 17.52		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 17.52		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 17.52		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 17.52		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 17.52		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 17.52		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 17.52	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 17.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	69-133	03.14.14 17.52	
1,2-Dichloroethane-D4	17060-07-0	108	%	66-139	03.14.14 17.52	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 17.52	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 17.52	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0201-12410**
Lab Sample Id: 480973-005

Matrix: Water
Date Collected: 03.12.14 11.20

Date Received:03.12.14 17.03

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936404

Date Prep: 03.14.14 12.26

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 18.18		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 18.18		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 18.18		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 18.18		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 18.18		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 18.18		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 18.18		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 18.18		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 18.18		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 18.18		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 18.18		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 18.18		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 18.18		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 18.18		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 18.18		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 18.18		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 18.18		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 18.18		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 18.18		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 18.18		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 18.18		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 18.18		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 18.18		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 18.18		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 18.18		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 18.18		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 18.18		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 18.18		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 18.18		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 18.18		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 18.18		1
1,1-Dichloroethene	75-35-4	**0.890**	0.500	ug/L	03.14.14 18.18		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 18.18		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 18.18		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 18.18		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 18.18		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 18.18		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 18.18		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 18.18		1

Final 1.000

03/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB82-0201-12410** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-005 Date Collected: 03.12.14 11.20

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 18.18		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 18.18		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 18.18		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 18.18		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 18.18		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 18.18		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 18.18		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 18.18		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 18.18		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 18.18		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 18.18		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 18.18		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 18.18		1
Tetrachloroethylene	127-18-4	**3.99**	0.500	ug/L	03.14.14 18.18		1
Toluene	108-88-3	**29.3** J(N3)	2.00	ug/L	03.14.14 18.18		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 18.18		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 18.18		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 18.18		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 18.18		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 18.18		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 18.18		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 18.18		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 18.18		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 18.18		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 18.18		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 18.18		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 18.18		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 18.18	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 18.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	69-133	03.14.14 18.18	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.14.14 18.18	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 18.18	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 18.18	

04/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0300-12360** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-006 Date Collected: 03.12.14 13.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 18.43		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 18.43		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 18.43		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 18.43		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 18.43		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 18.43		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 18.43		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 18.43		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 18.43		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 18.43		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 18.43		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 18.43		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 18.43		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 18.43		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 18.43		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 18.43		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 18.43		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 18.43		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 18.43		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 18.43		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 18.43		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 18.43		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 18.43		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 18.43		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 18.43		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 18.43		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 18.43		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 18.43		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 18.43		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 18.43		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 18.43		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 18.43		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 18.43		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 18.43		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 18.43		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 18.43		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 18.43		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 18.43		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 18.43		1

Final 1.000

CL 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB91-0300-12360** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-006 Date Collected: 03.12.14 13.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 18.43		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 18.43		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 18.43		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 18.43		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 18.43		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 18.43		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 18.43		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 18.43		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 18.43		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 18.43		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 18.43		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 18.43		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 18.43		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 18.43		1
Toluene	108-88-3	97.7 J(N3)	2.00	ug/L	03.14.14 18.43		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 18.43		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 18.43		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 18.43		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 18.43		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 18.43		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 18.43		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 18.43		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 18.43		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 18.43		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 18.43		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 18.43		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 18.43		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 18.43	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 18.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	112	%	69-133	03.14.14 18.43	
1,2-Dichloroethane-D4	17060-07-0	114	%	66-139	03.14.14 18.43	
Toluene-D8	2037-26-5	108	%	70-130	03.14.14 18.43	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 18.43	

CL 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0300-18330** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-007 Date Collected: 03.12.14 15.55

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 19.09		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 19.09		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 19.09		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 19.09		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 19.09		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 19.09		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 19.09		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 19.09		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 19.09		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 19.09		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 19.09		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 19.09		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 19.09		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 19.09		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 19.09		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 19.09		1
Chloroform	67-66-3	**1.25**	0.500	ug/L	03.14.14 19.09		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 19.09		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 19.09		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 19.09		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 19.09		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 19.09		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 19.09		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 19.09		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 19.09		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 19.09		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 19.09		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 19.09		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 19.09		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 19.09		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 19.09		1
1,1-Dichloroethene	75-35-4	**1.23**	0.500	ug/L	03.14.14 19.09		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 19.09		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 19.09		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 19.09		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 19.09		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 19.09		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 19.09		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 19.09		1

CL 4/22/14

Final 1.000

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0300-18330**
Lab Sample Id: 480973-007

Matrix: Water
Date Collected: 03.12.14 15.55

Date Received:03.12.14 17.03

Analytical Method: VOCs by EPA 8260B
Tech: OEM
Analyst: OEM
Seq Number: 936404

Date Prep: 03.14.14 12.26

Prep Method: SW5030C
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 19.09		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 19.09		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 19.09		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 19.09		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 19.09		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 19.09		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 19.09		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 19.09		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 19.09		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 19.09		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 19.09		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 19.09		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 19.09		1
Tetrachloroethylene	127-18-4	**3.37**	0.500	ug/L	03.14.14 19.09		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 19.09		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 19.09		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 19.09		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 19.09		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 19.09		1
Trichloroethene	79-01-6	**2.98**	0.500	ug/L	03.14.14 19.09		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 19.09		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 19.09		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 19.09		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 19.09		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 19.09		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 19.09		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 19.09		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 19.09	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 19.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.14.14 19.09	
1,2-Dichloroethane-D4	17060-07-0	109	%	66-139	03.14.14 19.09	
Toluene-D8	2037-26-5	105	%	70-130	03.14.14 19.09	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 19.09	

Final 1.000

CR 4/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0304-1000** Matrix: Water Date Received:03.12.14 17.03
Lab Sample Id: 480973-008 Date Collected: 03.12.14 16.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.14.14 12.26
Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 19.35		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 19.35		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 19.35		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 19.35		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 19.35		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 19.35		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 19.35		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 19.35		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 19.35		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 19.35		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 19.35		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 19.35		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 19.35		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 19.35		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 19.35		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 19.35		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 19.35		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 19.35		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 19.35		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 19.35		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 19.35		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 19.35		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 19.35		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 19.35		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 19.35		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 19.35		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 19.35		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 19.35		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 19.35		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 19.35		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 19.35		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 19.35		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 19.35		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 19.35		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 19.35		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 19.35		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 19.35		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 19.35		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 19.35		1

04/22/14

Certificate of Analytical Results 480973

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB122-0304-1000** Matrix: Water Date Received:03.12.14 17.03

Lab Sample Id: 480973-008 Date Collected: 03.12.14 16.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 19.35		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 19.35		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 19.35		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 19.35		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 19.35		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 19.35		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 19.35		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 19.35		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 19.35		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 19.35		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 19.35		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 19.35		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 19.35		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 19.35		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 19.35		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 19.35		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 19.35		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 19.35		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 19.35		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 19.35		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 19.35		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 19.35		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 19.35		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 19.35		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 19.35		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 19.35		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 19.35		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 19.35	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 19.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	69-133	03.14.14 19.35	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.14.14 19.35	
Toluene-D8	2037-26-5	107	%	70-130	03.14.14 19.35	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 19.35	

CR 4/22/14

LDC #: 31~~3~~46C1a (6) **VALIDATION COMPLETENESS WORKSHEET** Date: 4/17/14

SDG #: 480973 Level III Page: 1 of 1

Laboratory: Xenco Laboratories Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/12/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A ~~N~~	~~client specified~~ 480824-006 MS/D
VIII.	Laboratory control samples	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	Toluene: J det/ND
XVI.	Field duplicates	SW	D = 4,5
XVII.	Field blanks	ND	TB = 1 EB = 8

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

Water

1	AVB142-0102-1000 TB	11	652470-1-BLK	21		31	
2	AVB142-0100-11335	12		22		32	
3	AVB82-0100-24327	13		23		33	
4	AVB82-0200-12410 D	14		24		34	
5	AVB82-0201-12410 D	15		25		35	
6	AVB91-0300-12360	16		26		36	
7	AVB122-0300-18330	17		27		37	
8	AVB122-0304-1000 EB	18		28		38	
9		19		29		39	
10		20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC #: 31646C/a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: CR

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652470-	C	( )	122 (43-120)	( )	All	J/Pdet (L1)
	LCS ID		( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 31646cla

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer: CN

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD (≤ 20 %)	Qualifications (Parent only)
	4	5		
H	0.920	0.890	3	
AA	3.96	3.99	1	
CC	28.7	29.3	2	

Compound	Concentration ( )		RPD (≤ %	Qualifications (Parent only)

Compound	Concentration ( )		RPD (≤ %	Qualifications (Parent only)

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 13, 2014
LDC Report Date:	May 29, 2014
Matrix:	Water
Parameters:	Volatiles
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481073

Sample Identification

AVB139-0102-1000
AVB139-0100-13290
AVB61-0100-32450
AVB10-0200-38290
AVB10-0100-39120
AVB10-0104-1000

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB142-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB122-0304-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652470-LCS/D (All samples in SDG 481073)	Vinyl chloride	-	122 (43-120)	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

The following nonconformance was observed:

Sample	Finding	Flag	A or P
All samples in SDG 481073	The client indicates that there may have been toluene contamination during the collection process.	J (all detects)	A

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481073

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481073	AVB139-0102-1000 AVB139-0100-13290 AVB61-0100-32450 AVB10-0200-38290 AVB10-0100-39120 AVB10-0104-1000	Vinyl chloride	J (all detects)	P	Laboratory control samples (%R) (L1)
481073	AVB139-0102-1000 AVB139-0100-13290 AVB61-0100-32450 AVB10-0200-38290 AVB10-0100-39120 AVB10-0104-1000	Toluene	J (all detects)	A	Overall assessment of data (N3)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481073

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481073

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB139-0102-1000** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-001 Date Collected: 03.13.14 07.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 20.01		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 20.01		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 20.01		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 20.01		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 20.01		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 20.01		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 20.01		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 20.01		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 20.01		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 20.01		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 20.01		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 20.01		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 20.01		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 20.01		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 20.01		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 20.01		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 20.01		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 20.01		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 20.01		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 20.01		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 20.01		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 20.01		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 20.01		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 20.01		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 20.01		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 20.01		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 20.01		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 20.01		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 20.01		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 20.01		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 20.01		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 20.01		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 20.01		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 20.01		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 20.01		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 20.01		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 20.01		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 20.01		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 20.01		1

Final 1.000

04/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB139-0102-1000** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-001 Date Collected: 03.13.14 07.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 20.01		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 20.01		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 20.01		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 20.01		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 20.01		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 20.01		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 20.01		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 20.01		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 20.01		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 20.01		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 20.01		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 20.01		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 20.01		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 20.01		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 20.01		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 20.01		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 20.01		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 20.01		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 20.01		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 20.01		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 20.01		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 20.01		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 20.01		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 20.01		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 20.01		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 20.01		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 20.01		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 20.01	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 20.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	110	%	69-133	03.14.14 20.01	
1,2-Dichloroethane-D4	17060-07-0	110	%	66-139	03.14.14 20.01	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 20.01	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 20.01	

Final 1.000

CEM 12/24/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB139-0100-13290** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-002 Date Collected: 03.13.14 07.42

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 20.26		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 20.26		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 20.26		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 20.26		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 20.26		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 20.26		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 20.26		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 20.26		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 20.26		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 20.26		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 20.26		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 20.26		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 20.26		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 20.26		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 20.26		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 20.26		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 20.26		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 20.26		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 20.26		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 20.26		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 20.26		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 20.26		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 20.26		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 20.26		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 20.26		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 20.26		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 20.26		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 20.26		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 20.26		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 20.26		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 20.26		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 20.26		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 20.26		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 20.26		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 20.26		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 20.26		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 20.26		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 20.26		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 20.26		1

Final 1.000

CR 4/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB139-0100-13290** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-002 Date Collected: 03.13.14 07.42

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 20.26		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 20.26		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 20.26		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 20.26		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 20.26		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 20.26		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 20.26		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 20.26		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 20.26		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 20.26		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 20.26		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 20.26		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 20.26		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 20.26		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 20.26		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 20.26		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 20.26		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 20.26		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 20.26		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 20.26		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 20.26		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 20.26		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 20.26		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 20.26		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 20.26		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 20.26		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 20.26		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 20.26	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 20.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	113	%	69-133	03.14.14 20.26	
1,2-Dichloroethane-D4	17060-07-0	114	%	66-139	03.14.14 20.26	
Toluene-D8	2037-26-5	109	%	70-130	03.14.14 20.26	
4-Bromofluorobenzene	460-00-4	98	%	70-135	03.14.14 20.26	

CRY 12/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB61-0100-32450** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-003 Date Collected: 03.13.14 10.07

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 20.52		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 20.52		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 20.52		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 20.52		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 20.52		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 20.52		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 20.52		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 20.52		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 20.52		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 20.52		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 20.52		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 20.52		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 20.52		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 20.52		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 20.52		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 20.52		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 20.52		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 20.52		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 20.52		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 20.52		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 20.52		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 20.52		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 20.52		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 20.52		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 20.52		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 20.52		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 20.52		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 20.52		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 20.52		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 20.52		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 20.52		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 20.52		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 20.52		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 20.52		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 20.52		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 20.52		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 20.52		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 20.52		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 20.52		1

Final 1.000

03/24/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB61-0100-32450** Matrix: Water Date Received:03.13.14 14.49
Lab Sample Id: 481073-003 Date Collected: 03.13.14 10.07

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C
Tech: OEM % Moisture:
Analyst: OEM Date Prep: 03.14.14 12.26
Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 20.52		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 20.52		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 20.52		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 20.52		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 20.52		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 20.52		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 20.52		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 20.52		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 20.52		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 20.52		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 20.52		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 20.52		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 20.52		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 20.52		1
Toluene	108-88-3	**18.9** J(N3)	2.00	ug/L	03.14.14 20.52		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 20.52		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 20.52		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 20.52		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 20.52		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 20.52		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 20.52		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 20.52		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 20.52		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 20.52		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 20.52		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 20.52		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 20.52		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 20.52	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 20.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	69-133	03.14.14 20.52	
1,2-Dichloroethane-D4	17060-07-0	111	%	66-139	03.14.14 20.52	
Toluene-D8	2037-26-5	105	%	70-130	03.14.14 20.52	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 20.52	

04/23/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0200-38290** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-004 Date Collected: 03.13.14 12.22

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 21.18		1
Benzene	71-43-2	**0.800**	0.500	ug/L	03.14.14 21.18		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 21.18		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 21.18		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 21.18		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 21.18		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 21.18		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 21.18		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 21.18		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 21.18		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 21.18		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 21.18		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 21.18		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 21.18		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 21.18		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 21.18		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 21.18		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 21.18		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 21.18		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 21.18		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 21.18		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 21.18		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 21.18		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 21.18		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 21.18		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 21.18		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 21.18		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 21.18		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 21.18		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 21.18		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 21.18		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 21.18		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 21.18		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 21.18		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 21.18		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 21.18		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 21.18		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 21.18		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 21.18		1

Final 1.000

CS 4/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0200-38290** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-004 Date Collected: 03.13.14 12.22

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 21.18		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 21.18		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 21.18		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 21.18		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 21.18		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 21.18		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 21.18		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 21.18		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 21.18		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 21.18		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 21.18		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 21.18		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 21.18		1
Tetrachloroethylene	127-18-4	**2.59**	0.500	ug/L	03.14.14 21.18		1
Toluene	108-88-3	**75.7** J(N3)	2.00	ug/L	03.14.14 21.18		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 21.18		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 21.18		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 21.18		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 21.18		1
Trichloroethene	79-01-6	**1.08**	0.500	ug/L	03.14.14 21.18		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 21.18		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 21.18		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 21.18		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 21.18		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 21.18		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 21.18		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 21.18		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 21.18	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 21.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	69-133	03.14.14 21.18	
1,2-Dichloroethane-D4	17060-07-0	111	%	66-139	03.14.14 21.18	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 21.18	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 21.18	

CR 4/23/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0100-39120** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-005 Date Collected: 03.13.14 13.37

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 21.44		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 21.44		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 21.44		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 21.44		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 21.44		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 21.44		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 21.44		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 21.44		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 21.44		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 21.44		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 21.44		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 21.44		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 21.44		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 21.44		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 21.44		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 21.44		1
Chloroform	67-66-3	**0.590**	0.500	ug/L	03.14.14 21.44		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 21.44		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 21.44		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 21.44		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 21.44		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 21.44		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 21.44		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 21.44		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 21.44		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 21.44		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 21.44		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 21.44		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 21.44		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 21.44		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 21.44		1
1,1-Dichloroethene	75-35-4	**0.870**	0.500	ug/L	03.14.14 21.44		1
cis-1,2-Dichloroethene	156-59-2	**0.520**	0.500	ug/L	03.14.14 21.44		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 21.44		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 21.44		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 21.44		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 21.44		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 21.44		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 21.44		1

04/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0100-39120** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-005 Date Collected: 03.13.14 13.37

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 21.44		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 21.44		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 21.44		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 21.44		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 21.44		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 21.44		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 21.44		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 21.44		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 21.44		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 21.44		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 21.44		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 21.44		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 21.44		1
Tetrachloroethylene	127-18-4	**16.5**	0.500	ug/L	03.14.14 21.44		1
Toluene	108-88-3	**23.2J(N3)**	2.00	ug/L	03.14.14 21.44		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 21.44		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 21.44		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 21.44		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 21.44		1
Trichloroethene	79-01-6	**1.87**	0.500	ug/L	03.14.14 21.44		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 21.44		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 21.44		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 21.44		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 21.44		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 21.44		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 21.44		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 21.44		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 21.44	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 21.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	116	%	69-133	03.14.14 21.44	
1,2-Dichloroethane-D4	17060-07-0	120	%	66-139	03.14.14 21.44	
Toluene-D8	2037-26-5	108	%	70-130	03.14.14 21.44	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.14.14 21.44	

CLY 12/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0104-1000** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-006 Date Collected: 03.13.14 13.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 22.10		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 22.10		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 22.10		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 22.10		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 22.10		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 22.10		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 22.10		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 22.10		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 22.10		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 22.10		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 22.10		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 22.10		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 22.10		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 22.10		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 22.10		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 22.10		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 22.10		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 22.10		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 22.10		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 22.10		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 22.10		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 22.10		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 22.10		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 22.10		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 22.10		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 22.10		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 22.10		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 22.10		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 22.10		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 22.10		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 22.10		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 22.10		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 22.10		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 22.10		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 22.10		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 22.10		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 22.10		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 22.10		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 22.10		1

Final 1.000

CRY 3/22/14

Certificate of Analytical Results 481073

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB10-0104-1000** Matrix: Water Date Received:03.13.14 14.49

Lab Sample Id: 481073-006 Date Collected: 03.13.14 13.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 22.10		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 22.10		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 22.10		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 22.10		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 22.10		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 22.10		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 22.10		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 22.10		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 22.10		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 22.10		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 22.10		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 22.10		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 22.10		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 22.10		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 22.10		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 22.10		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 22.10		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 22.10		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 22.10		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 22.10		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 22.10		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 22.10		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 22.10		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 22.10		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 22.10		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 22.10		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 22.10		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 22.10	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 22.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	111	%	69-133	03.14.14 22.10	
1,2-Dichloroethane-D4	17060-07-0	112	%	66-139	03.14.14 22.10	
Toluene-D8	2037-26-5	106	%	70-130	03.14.14 22.10	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.14.14 22.10	

04/22/14

LDC #: 31346D1a

SDG #: 481073

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/18/14

Page: 1 of 1

Reviewer: FM

2nd Reviewer: CL

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/13/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	480824-006 MS/D
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	Toluene: J det/A
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 1 EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	AVB139-0102-1000 TB	11	652470-1-BLK	21		31	
2	AVB139-0100-13290	12		22		32	
3	AVB61-0100-32450	13		23		33	
4	AVB10-0200-38290	14		24		34	
5	AVB10-0100-39120	15		25		35	
6	AVB10-0104-1000 EB	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC #: 31646D1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: CZ

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652470-LCS ID	C	( )	122 (43-120)	( )	All	J/Det (L1)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	West Van Buren Area
Collection Date:	March 14, 2014
LDC Report Date:	May 29, 2014
Matrix:	Water
Parameters:	Volatiles
Validation Level:	EPA Level III
Laboratory:	Xenco Laboratories
Sample Delivery Group (SDG):	481201

Sample Identification

AVB141-0102-1000
AVB141-0100-13285
AVB116-0201-19205
AVB116-0200-19205
AVB132-0200-15280
AVB132-0104-1000
AVB141-0100-13285MS
AVB141-0100-13285MSD

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Level III.

III. Initial Calibration

Initial calibration data were not reviewed for Level III.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Level III.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample AVB141-0102-1000 was identified as a trip blank. No volatile contaminants were found.

Sample AVB132-0104-1000 was identified as an equipment blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
AVB141-0100-13285MS/MSD (AVB141-0100-13285)	Bromomethane	28 (53-141)	-	77 (≤22)	J (all detects) UJ (all non-detects)	A
AVB141-0100-13285MS/MSD (AVB141-0100-13285)	Chloromethane 2-Hexanone	163 (47-148) 124 (52-122)	- -	- -	J (all detects) J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
652470-LCS/D (AVB141-0102-1000 652470-1-BLK)	Vinyl chloride	-	122 (43-120)	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Level III.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

The following nonconformance was observed:

Sample	Finding	Flag	A or P
All samples in SDG 481201	The client indicates that there may have been toluene contamination during the collection process.	J (all detects)	A

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples AVB116-0201-19205 and AVB116-0200-19205 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	AVB116-0201-19205	AVB116-0200-19205			
Chloroform	1.59	0.50U	104 (≤20)	J (all detects) UJ (all non-detects)	A
1,1-Dichloroethane	2.66	1.82	38 (≤20)	J (all detects)	A
1,1-Dichloroethene	4.40	3.17	32 (≤20)	J (all detects)	A
cis-1,2-Dichloroethene	2.91	1.98	38 (≤20)	J (all detects)	A
Tetrachloroethene	1.17	0.670	54 (≤20)	J (all detects)	A
Trichloroethene	12.5	8.55	38 (≤20)	J (all detects)	A
Toluene	2.00U	65.6	188 (≤20)	J (all detects) UJ (all non-detects)	A

West Van Buren Area
Volatiles - Data Qualification Summary - SDG 481201

SDG	Sample	Compound	Flag	A or P	Reason (Code)
481201	AVB141-0100-13285	Bromomethane	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (M2,R5)
481201	AVB141-0100-13285	Chloromethane 2-Hexanone	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (M1)
481201	AVB141-0102-1000	Vinyl chloride	J (all detects)	P	Laboratory control samples (%R) (L1)
481201	AVB116-0201-19205 AVB116-0200-19205	Chloroform Toluene	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (R8)
481201	AVB116-0201-19205 AVB116-0200-19205	1,1-Dichloroethane 1,1-Dichloroethene cis-1,2-Dichloroethene Tetrachloroethene Trichloroethene	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A	Field duplicates (RPD) (R8)
481201	AVB141-0102-1000 AVB141-0100-13285 AVB116-0201-19205 AVB116-0200-19205 AVB132-0200-15280 AVB132-0104-1000	Toluene	J (all detects)	A	Overall assessment of data (N3)

West Van Buren Area
Volatiles - Laboratory Blank Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

West Van Buren Area
Volatiles - Field Blank Data Qualification Summary - SDG 481201

No Sample Data Qualified in this SDG

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB141-0102-1000** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-001 Date Collected: 03.14.14 07.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.14.14 22.35		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.14.14 22.35		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.14.14 22.35		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.14.14 22.35		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.14.14 22.35		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.14.14 22.35		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.14.14 22.35		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.14.14 22.35		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.14.14 22.35		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.14.14 22.35		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.14.14 22.35		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.14.14 22.35		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.14.14 22.35		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.14.14 22.35		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.14.14 22.35		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.14.14 22.35		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.14.14 22.35		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.14.14 22.35		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.14.14 22.35		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.14.14 22.35		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.14.14 22.35		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.14.14 22.35		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.14.14 22.35		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.14.14 22.35		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.14.14 22.35		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.14.14 22.35		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.14.14 22.35		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.14.14 22.35		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.14.14 22.35		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.14.14 22.35		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.14.14 22.35		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.14.14 22.35		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.14.14 22.35		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.14.14 22.35		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.14.14 22.35		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.14.14 22.35		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.14.14 22.35		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.14.14 22.35		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.14.14 22.35		1

Final 1.000

0291/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB141-0102-1000** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-001 Date Collected: 03.14.14 07.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.14.14 12.26

Seq Number: 936404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.14.14 22.35		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.14.14 22.35		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.14.14 22.35		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.14.14 22.35		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.14.14 22.35		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.14.14 22.35		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.14.14 22.35		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.14.14 22.35		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.14.14 22.35		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.14.14 22.35		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.14.14 22.35		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.14.14 22.35		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.14.14 22.35		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.14.14 22.35		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.14.14 22.35		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.14.14 22.35		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.14.14 22.35		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.14.14 22.35		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.14.14 22.35		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.14.14 22.35		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.14.14 22.35		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.14.14 22.35		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.14.14 22.35		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.14.14 22.35		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.14.14 22.35		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.14.14 22.35		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.14.14 22.35		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.14.14 22.35	L1	1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.14.14 22.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	110	%	69-133	03.14.14 22.35	
1,2-Dichloroethane-D4	17060-07-0	112	%	66-139	03.14.14 22.35	
Toluene-D8	2037-26-5	107	%	70-130	03.14.14 22.35	
4-Bromofluorobenzene	460-00-4	99	%	70-135	03.14.14 22.35	

CR4/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB141-0100-13285** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-002 Date Collected: 03.14.14 07.10

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.15.14 19.43		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.15.14 19.43		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.15.14 19.43		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.15.14 19.43		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.15.14 19.43		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.15.14 19.43		1
Bromomethane	74-83-9	<5.00 UJ	5.00 (M2)	ug/L	03.15.14 19.43	M2	1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.15.14 19.43		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.15.14 19.43		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.15.14 19.43		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.15.14 19.43		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.15.14 19.43		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.15.14 19.43		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.15.14 19.43		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.15.14 19.43		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.15.14 19.43		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.15.14 19.43		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.15.14 19.43	M1	1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.15.14 19.43		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.15.14 19.43		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.15.14 19.43		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.15.14 19.43		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.15.14 19.43		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.15.14 19.43		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.15.14 19.43		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.15.14 19.43		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.15.14 19.43		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.15.14 19.43		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.15.14 19.43		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.15.14 19.43		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.15.14 19.43		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.15.14 19.43		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.15.14 19.43		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.15.14 19.43		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.15.14 19.43		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.15.14 19.43		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.15.14 19.43		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.15.14 19.43		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.15.14 19.43		1

02/22/14

Final 1.000

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB141-0100-13285** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-002 Date Collected: 03.14.14 07.10

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.15.14 19.43		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.15.14 19.43		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.15.14 19.43		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.15.14 19.43	M1	1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.15.14 19.43		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.15.14 19.43		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.15.14 19.43		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.15.14 19.43		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.15.14 19.43		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.15.14 19.43		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.15.14 19.43		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.15.14 19.43		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.15.14 19.43		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.15.14 19.43		1
Toluene	108-88-3	**2.85** J(N3)	2.00	ug/L	03.15.14 19.43		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.15.14 19.43		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.15.14 19.43		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.15.14 19.43		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.15.14 19.43		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.15.14 19.43		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.15.14 19.43		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.15.14 19.43		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.15.14 19.43		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.15.14 19.43		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.15.14 19.43		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.15.14 19.43		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.15.14 19.43		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.15.14 19.43		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.15.14 19.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	69-133	03.15.14 19.43	
1,2-Dichloroethane-D4	17060-07-0	97	%	66-139	03.15.14 19.43	
Toluene-D8	2037-26-5	104	%	70-130	03.15.14 19.43	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.15.14 19.43	

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Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0201-19205** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-003 Date Collected: 03.14.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.15.14 20.08		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.15.14 20.08		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.15.14 20.08		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.15.14 20.08		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.15.14 20.08		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.15.14 20.08		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.15.14 20.08		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.15.14 20.08		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.15.14 20.08		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.15.14 20.08		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.15.14 20.08		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.15.14 20.08		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.15.14 20.08		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.15.14 20.08		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.15.14 20.08		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.15.14 20.08		1
Chloroform	67-66-3	**1.59** J	0.500 (R8)	ug/L	03.15.14 20.08		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.15.14 20.08		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.15.14 20.08		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.15.14 20.08		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.15.14 20.08		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.15.14 20.08		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.15.14 20.08		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.15.14 20.08		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.15.14 20.08		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.15.14 20.08		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.15.14 20.08		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.15.14 20.08		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.15.14 20.08		1
1,1-Dichloroethane	75-34-3	**2.66** J	0.500 (R8)	ug/L	03.15.14 20.08		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.15.14 20.08		1
1,1-Dichloroethene	75-35-4	**4.40** J	0.500 (R8)	ug/L	03.15.14 20.08		1
cis-1,2-Dichloroethene	156-59-2	**2.91** J	0.500 (R8)	ug/L	03.15.14 20.08		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.15.14 20.08		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.15.14 20.08		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.15.14 20.08		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.15.14 20.08		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.15.14 20.08		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.15.14 20.08		1

Final 1.000

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Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0201-19205** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-003 Date Collected: 03.14.14 08.00

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500		ug/L	03.15.14 20.08		1
Ethylbenzene	100-41-4	<2.00	2.00		ug/L	03.15.14 20.08		1
Hexachlorobutadiene	87-68-3	<5.00	5.00		ug/L	03.15.14 20.08		1
2-Hexanone	591-78-6	<5.00	5.00		ug/L	03.15.14 20.08		1
isopropylbenzene	98-82-8	<2.50	2.50		ug/L	03.15.14 20.08		1
Methylene Chloride	75-09-2	<3.00	3.00		ug/L	03.15.14 20.08		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00		ug/L	03.15.14 20.08		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00		ug/L	03.15.14 20.08		1
Naphthalene	91-20-3	<5.00	5.00		ug/L	03.15.14 20.08		1
n-Propylbenzene	103-65-1	<2.00	2.00		ug/L	03.15.14 20.08		1
Styrene	100-42-5	<1.00	1.00		ug/L	03.15.14 20.08		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500		ug/L	03.15.14 20.08		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500		ug/L	03.15.14 20.08		1
Tetrachloroethylene	127-18-4	**1.17** J	0.500	(R8)	ug/L	03.15.14 20.08		1
Toluene	108-88-3	<2.00 UJ	2.00	(R8)	ug/L	03.15.14 20.08		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00		ug/L	03.15.14 20.08		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00		ug/L	03.15.14 20.08		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500		ug/L	03.15.14 20.08		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500		ug/L	03.15.14 20.08		1
Trichloroethene	79-01-6	**12.5** J	0.500	(R8)	ug/L	03.15.14 20.08		1
Trichlorofluoromethane	75-69-4	<2.00	2.00		ug/L	03.15.14 20.08		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00		ug/L	03.15.14 20.08		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00		ug/L	03.15.14 20.08		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50		ug/L	03.15.14 20.08		1
o-Xylene	95-47-6	<1.00	1.00		ug/L	03.15.14 20.08		1
m,p-Xylenes	179601-23-1	<2.00	2.00		ug/L	03.15.14 20.08		1
Vinyl Acetate	108-05-4	<5.00	5.00		ug/L	03.15.14 20.08		1
Vinyl Chloride	75-01-4	<0.500	0.500		ug/L	03.15.14 20.08		1
Total Xylenes	1330-20-7	<1.00	1.00		ug/L	03.15.14 20.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	69-133	03.15.14 20.08	
1,2-Dichloroethane-D4	17060-07-0	100	%	66-139	03.15.14 20.08	
Toluene-D8	2037-26-5	103	%	70-130	03.15.14 20.08	
4-Bromofluorobenzene	460-00-4	95	%	70-135	03.15.14 20.08	

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Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0200-19205** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-004 Date Collected: 03.14.14 09.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.15.14 20.34		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.15.14 20.34		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.15.14 20.34		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.15.14 20.34		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.15.14 20.34		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.15.14 20.34		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.15.14 20.34		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.15.14 20.34		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.15.14 20.34		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.15.14 20.34		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.15.14 20.34		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.15.14 20.34		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.15.14 20.34		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.15.14 20.34		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.15.14 20.34		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.15.14 20.34		1
Chloroform	67-66-3	<0.500 US	0.500 (RB)	ug/L	03:15.14 20.34		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.15.14 20.34		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.15.14 20.34		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.15.14 20.34		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.15.14 20.34		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.15.14 20.34		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.15.14 20.34		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.15.14 20.34		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.15.14 20.34		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.15.14 20.34		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.15.14 20.34		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.15.14 20.34		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.15.14 20.34		1
1,1-Dichloroethane	75-34-3	**1.82** J	0.500 (RB)	ug/L	03.15.14 20.34		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.15.14 20.34		1
1,1-Dichloroethene	75-35-4	**3.17** J	0.500 (RB)	ug/L	03.15.14 20.34		1
cis-1,2-Dichloroethene	156-59-2	**1.98** J	0.500 (RB)	ug/L	03.15.14 20.34		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.15.14 20.34		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.15.14 20.34		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.15.14 20.34		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.15.14 20.34		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.15.14 20.34		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.15.14 20.34		1

C24/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB116-0200-19205** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-004 Date Collected: 03.14.14 09.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result		RL		Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500		0.500		ug/L	03.15.14 20.34		1
Ethylbenzene	100-41-4	<2.00		2.00		ug/L	03.15.14 20.34		1
Hexachlorobutadiene	87-68-3	<5.00		5.00		ug/L	03.15.14 20.34		1
2-Hexanone	591-78-6	<5.00		5.00		ug/L	03.15.14 20.34		1
isopropylbenzene	98-82-8	<2.50		2.50		ug/L	03.15.14 20.34		1
Methylene Chloride	75-09-2	<3.00		3.00		ug/L	03.15.14 20.34		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00		2.00		ug/L	03.15.14 20.34		1
4-Methyl-2-Pentanone	108-10-1	<5.00		5.00		ug/L	03.15.14 20.34		1
Naphthalene	91-20-3	<5.00		5.00		ug/L	03.15.14 20.34		1
n-Propylbenzene	103-65-1	<2.00		2.00		ug/L	03.15.14 20.34		1
Styrene	100-42-5	<1.00		1.00		ug/L	03.15.14 20.34		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500		0.500		ug/L	03.15.14 20.34		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500		0.500		ug/L	03.15.14 20.34		1
Tetrachloroethylene	127-18-4	**0.670**	J	0.500	(R8)	ug/L	03.15.14 20.34		1
Toluene	108-88-3	**65.6**	J	2.00	(R8,W3)	ug/L	03.15.14 20.34		1
1,2,3-Trichlorobenzene	87-61-6	<5.00		5.00		ug/L	03.15.14 20.34		1
1,2,4-Trichlorobenzene	120-82-1	<5.00		5.00		ug/L	03.15.14 20.34		1
1,1,1-Trichloroethane	71-55-6	<0.500		0.500		ug/L	03.15.14 20.34		1
1,1,2-Trichloroethane	79-00-5	<0.500		0.500		ug/L	03.15.14 20.34		1
Trichloroethene	79-01-6	**8.55**	J	0.500	(R8)	ug/L	03.15.14 20.34		1
Trichlorofluoromethane	75-69-4	<2.00		2.00		ug/L	03.15.14 20.34		1
1,2,3-Trichloropropane	96-18-4	<1.00		1.00		ug/L	03.15.14 20.34		1
1,2,4-Trimethylbenzene	95-63-6	<2.00		2.00		ug/L	03.15.14 20.34		1
1,3,5-Trimethylbenzene	108-67-8	<1.50		1.50		ug/L	03.15.14 20.34		1
o-Xylene	95-47-6	<1.00		1.00		ug/L	03.15.14 20.34		1
m,p-Xylenes	179601-23-1	<2.00		2.00		ug/L	03.15.14 20.34		1
Vinyl Acetate	108-05-4	<5.00		5.00		ug/L	03.15.14 20.34		1
Vinyl Chloride	75-01-4	<0.500		0.500		ug/L	03.15.14 20.34		1
Total Xylenes	1330-20-7	<1.00		1.00		ug/L	03.15.14 20.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	69-133	03.15.14 20.34	
1,2-Dichloroethane-D4	17060-07-0	99	%	66-139	03.15.14 20.34	
Toluene-D8	2037-26-5	104	%	70-130	03.15.14 20.34	
4-Bromofluorobenzene	460-00-4	94	%	70-135	03.15.14 20.34	

04/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0200-15280** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-005 Date Collected: 03.14.14 11.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.15.14 21.00		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.15.14 21.00		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.15.14 21.00		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.15.14 21.00		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.15.14 21.00		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.15.14 21.00		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.15.14 21.00		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.15.14 21.00		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.15.14 21.00		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.15.14 21.00		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.15.14 21.00		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.15.14 21.00		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.15.14 21.00		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.15.14 21.00		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.15.14 21.00		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.15.14 21.00		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.15.14 21.00		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.15.14 21.00		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.15.14 21.00		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.15.14 21.00		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.15.14 21.00		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.15.14 21.00		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.15.14 21.00		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.15.14 21.00		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.15.14 21.00		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.15.14 21.00		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.15.14 21.00		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.15.14 21.00		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.15.14 21.00		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.15.14 21.00		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.15.14 21.00		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.15.14 21.00		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.15.14 21.00		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.15.14 21.00		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.15.14 21.00		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.15.14 21.00		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.15.14 21.00		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.15.14 21.00		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.15.14 21.00		1

024/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0200-15280** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-005 Date Collected: 03.14.14 11.40

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.15.14 21.00		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.15.14 21.00		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.15.14 21.00		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.15.14 21.00		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.15.14 21.00		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.15.14 21.00		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.15.14 21.00		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.15.14 21.00		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.15.14 21.00		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.15.14 21.00		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.15.14 21.00		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.15.14 21.00		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.15.14 21.00		1
Tetrachloroethylene	127-18-4	**0.880**	0.500	ug/L	03.15.14 21.00		1
Toluene	108-88-3	**4.88** J(N3)	2.00	ug/L	03.15.14 21.00		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.15.14 21.00		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.15.14 21.00		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.15.14 21.00		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.15.14 21.00		1
Trichloroethene	79-01-6	**3.25**	0.500	ug/L	03.15.14 21.00		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.15.14 21.00		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.15.14 21.00		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.15.14 21.00		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.15.14 21.00		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.15.14 21.00		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.15.14 21.00		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.15.14 21.00		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.15.14 21.00		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.15.14 21.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	69-133	03.15.14 21.00	
1,2-Dichloroethane-D4	17060-07-0	103	%	66-139	03.15.14 21.00	
Toluene-D8	2037-26-5	106	%	70-130	03.15.14 21.00	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.15.14 21.00	

04/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0104-1000** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-006 Date Collected: 03.14.14 11.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	<20.0	20.0	ug/L	03.15.14 21.26		1
Benzene	71-43-2	<0.500	0.500	ug/L	03.15.14 21.26		1
Bromobenzene	108-86-1	<1.50	1.50	ug/L	03.15.14 21.26		1
Bromochloromethane	74-97-5	<0.500	0.500	ug/L	03.15.14 21.26		1
Bromodichloromethane	75-27-4	<0.500	0.500	ug/L	03.15.14 21.26		1
Bromoform	75-25-2	<1.00	1.00	ug/L	03.15.14 21.26		1
Bromomethane	74-83-9	<5.00	5.00	ug/L	03.15.14 21.26		1
2-Butanone	78-93-3	<5.00	5.00	ug/L	03.15.14 21.26		1
MTBE	1634-04-4	<2.00	2.00	ug/L	03.15.14 21.26		1
n-Butylbenzene	104-51-8	<2.50	2.50	ug/L	03.15.14 21.26		1
Sec-Butylbenzene	135-98-8	<1.50	1.50	ug/L	03.15.14 21.26		1
tert-Butylbenzene	98-06-6	<2.50	2.50	ug/L	03.15.14 21.26		1
Carbon Disulfide	75-15-0	<0.500	0.500	ug/L	03.15.14 21.26		1
Carbon Tetrachloride	56-23-5	<0.500	0.500	ug/L	03.15.14 21.26		1
Chlorobenzene	108-90-7	<0.500	0.500	ug/L	03.15.14 21.26		1
Chloroethane	75-00-3	<4.00	4.00	ug/L	03.15.14 21.26		1
Chloroform	67-66-3	<0.500	0.500	ug/L	03.15.14 21.26		1
Chloromethane	74-87-3	<5.00	5.00	ug/L	03.15.14 21.26		1
2-Chlorotoluene	95-49-8	<1.50	1.50	ug/L	03.15.14 21.26		1
4-Chlorotoluene	106-43-4	<2.00	2.00	ug/L	03.15.14 21.26		1
p-Cymene (p-Isopropyltoluene)	99-87-6	<1.50	1.50	ug/L	03.15.14 21.26		1
Dibromochloromethane	124-48-1	<0.500	0.500	ug/L	03.15.14 21.26		1
1,2-Dibromo-3-Chloropropane	96-12-8	<2.00	2.00	ug/L	03.15.14 21.26		1
1,2-Dibromoethane	106-93-4	<0.500	0.500	ug/L	03.15.14 21.26		1
Dibromomethane	74-95-3	<0.500	0.500	ug/L	03.15.14 21.26		1
1,2-Dichlorobenzene	95-50-1	<1.50	1.50	ug/L	03.15.14 21.26		1
1,3-Dichlorobenzene	541-73-1	<1.50	1.50	ug/L	03.15.14 21.26		1
1,4-Dichlorobenzene	106-46-7	<1.50	1.50	ug/L	03.15.14 21.26		1
Dichlorodifluoromethane	75-71-8	<2.00	2.00	ug/L	03.15.14 21.26		1
1,1-Dichloroethane	75-34-3	<0.500	0.500	ug/L	03.15.14 21.26		1
1,2-Dichloroethane	107-06-2	<0.500	0.500	ug/L	03.15.14 21.26		1
1,1-Dichloroethene	75-35-4	<0.500	0.500	ug/L	03.15.14 21.26		1
cis-1,2-Dichloroethene	156-59-2	<0.500	0.500	ug/L	03.15.14 21.26		1
trans-1,2-dichloroethene	156-60-5	<0.500	0.500	ug/L	03.15.14 21.26		1
1,2-Dichloropropane	78-87-5	<0.500	0.500	ug/L	03.15.14 21.26		1
1,3-Dichloropropane	142-28-9	<1.00	1.00	ug/L	03.15.14 21.26		1
2,2-Dichloropropane	594-20-7	<0.500	0.500	ug/L	03.15.14 21.26		1
1,1-Dichloropropene	563-58-6	<1.00	1.00	ug/L	03.15.14 21.26		1
cis-1,3-Dichloropropene	10061-01-5	<1.00	1.00	ug/L	03.15.14 21.26		1

0241/22/14

Certificate of Analytical Results 481201

Terranext, Phoenix, AZ

WVBA

Sample Id: **AVB132-0104-1000** Matrix: Water Date Received:03.14.14 12.15

Lab Sample Id: 481201-006 Date Collected: 03.14.14 11.45

Analytical Method: VOCs by EPA 8260B Prep Method: SW5030C

Tech: OEM % Moisture:

Analyst: OEM Date Prep: 03.15.14 17.24

Seq Number: 936415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
trans-1,3-dichloropropene	10061-02-6	<0.500	0.500	ug/L	03.15.14 21.26		1
Ethylbenzene	100-41-4	<2.00	2.00	ug/L	03.15.14 21.26		1
Hexachlorobutadiene	87-68-3	<5.00	5.00	ug/L	03.15.14 21.26		1
2-Hexanone	591-78-6	<5.00	5.00	ug/L	03.15.14 21.26		1
isopropylbenzene	98-82-8	<2.50	2.50	ug/L	03.15.14 21.26		1
Methylene Chloride	75-09-2	<3.00	3.00	ug/L	03.15.14 21.26		1
Iodomethane (Methyl Iodide)	74-88-4	<2.00	2.00	ug/L	03.15.14 21.26		1
4-Methyl-2-Pentanone	108-10-1	<5.00	5.00	ug/L	03.15.14 21.26		1
Naphthalene	91-20-3	<5.00	5.00	ug/L	03.15.14 21.26		1
n-Propylbenzene	103-65-1	<2.00	2.00	ug/L	03.15.14 21.26		1
Styrene	100-42-5	<1.00	1.00	ug/L	03.15.14 21.26		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.500	0.500	ug/L	03.15.14 21.26		1
1,1,2,2-Tetrachloroethane	79-34-5	<0.500	0.500	ug/L	03.15.14 21.26		1
Tetrachloroethylene	127-18-4	<0.500	0.500	ug/L	03.15.14 21.26		1
Toluene	108-88-3	<2.00	2.00	ug/L	03.15.14 21.26		1
1,2,3-Trichlorobenzene	87-61-6	<5.00	5.00	ug/L	03.15.14 21.26		1
1,2,4-Trichlorobenzene	120-82-1	<5.00	5.00	ug/L	03.15.14 21.26		1
1,1,1-Trichloroethane	71-55-6	<0.500	0.500	ug/L	03.15.14 21.26		1
1,1,2-Trichloroethane	79-00-5	<0.500	0.500	ug/L	03.15.14 21.26		1
Trichloroethene	79-01-6	<0.500	0.500	ug/L	03.15.14 21.26		1
Trichlorofluoromethane	75-69-4	<2.00	2.00	ug/L	03.15.14 21.26		1
1,2,3-Trichloropropane	96-18-4	<1.00	1.00	ug/L	03.15.14 21.26		1
1,2,4-Trimethylbenzene	95-63-6	<2.00	2.00	ug/L	03.15.14 21.26		1
1,3,5-Trimethylbenzene	108-67-8	<1.50	1.50	ug/L	03.15.14 21.26		1
o-Xylene	95-47-6	<1.00	1.00	ug/L	03.15.14 21.26		1
m,p-Xylenes	179601-23-1	<2.00	2.00	ug/L	03.15.14 21.26		1
Vinyl Acetate	108-05-4	<5.00	5.00	ug/L	03.15.14 21.26		1
Vinyl Chloride	75-01-4	<0.500	0.500	ug/L	03.15.14 21.26		1
Total Xylenes	1330-20-7	<1.00	1.00	ug/L	03.15.14 21.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	69-133	03.15.14 21.26	
1,2-Dichloroethane-D4	17060-07-0	104	%	66-139	03.15.14 21.26	
Toluene-D8	2037-26-5	104	%	70-130	03.15.14 21.26	
4-Bromofluorobenzene	460-00-4	96	%	70-135	03.15.14 21.26	

Final 1.000

CRY 12/14

LDC #: 31~~3~~46E1a

SDG #: 481201

Laboratory: Xenco Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 4/18/14

Page: 1 of 1

Reviewer:

2nd Reviewer:

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	Δ	Sampling dates: 3/14/14
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration/ICV	N	
V.	Blanks	Δ	
VI.	Surrogate spikes	Δ	
VII.	Matrix spike/Matrix spike duplicates	SW	480824-006 MS/D
VIII.	Laboratory control samples	SW	LCS/P
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	Δ	Toluene: J det/A
XVI.	Field duplicates	SW	D = 3, 4
XVII.	Field blanks	ND	TB = 1 EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

water

1	AVB141-0102-1000 TB	11	652470-1-BLK	21		31	
2	AVB141-0100-13285	12	652474-1-BLK	22		32	
3	AVB116-0201-19205 D	13		23		33	
4	AVB116-0200-19205 D	14		24		34	
5	AVB132-0200-15280	15		25		35	
6	AVB132-0104-1000 EB	16		26		36	
7	AVB141-0100-13285MS	17		27		37	
8	AVB141-0100-13285MSD	18		28		38	
9		19		29		39	
10		20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

.LDC #: 31646E1a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer: OR

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	7+8	B	28 (53-141)	( )	77 (22)	2	J/UJ/A (M2, R5)
		A	163 (47-148)	( )	( )	↓	J/A det (M1)
		Z	124 (52-122)	( )	( )	↓	↓ (M1)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

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VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: FT
2nd Reviewer: CR

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	652470-LCS/D	C	( )	122 (43-120)	( )	1,	J/P det (L1)
			( )	( )	( )	652470-1-BLK	
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		

LDC: 31646e1a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT

2nd Reviewer: CL

Method: GC/MS VOA (EPA SW 846 Method 8260B)

(RB)

Analyte	Concentration (µg/L)		RPD (≤ 20%)	Qualifiers (Parents Only)
	3	4		
K	1.59	0.50U	104	J/UJ/A
I	2.66	1.82	38	J/A det
H	4.40	3.17	32	J/A det
QQQ	2.91	1.98	38	J/A det
AA	1.17	0.670	54	J/A det
S	12.5	8.55	38	J/A det
CC	2.00U	65.6	188	J/UJ/A